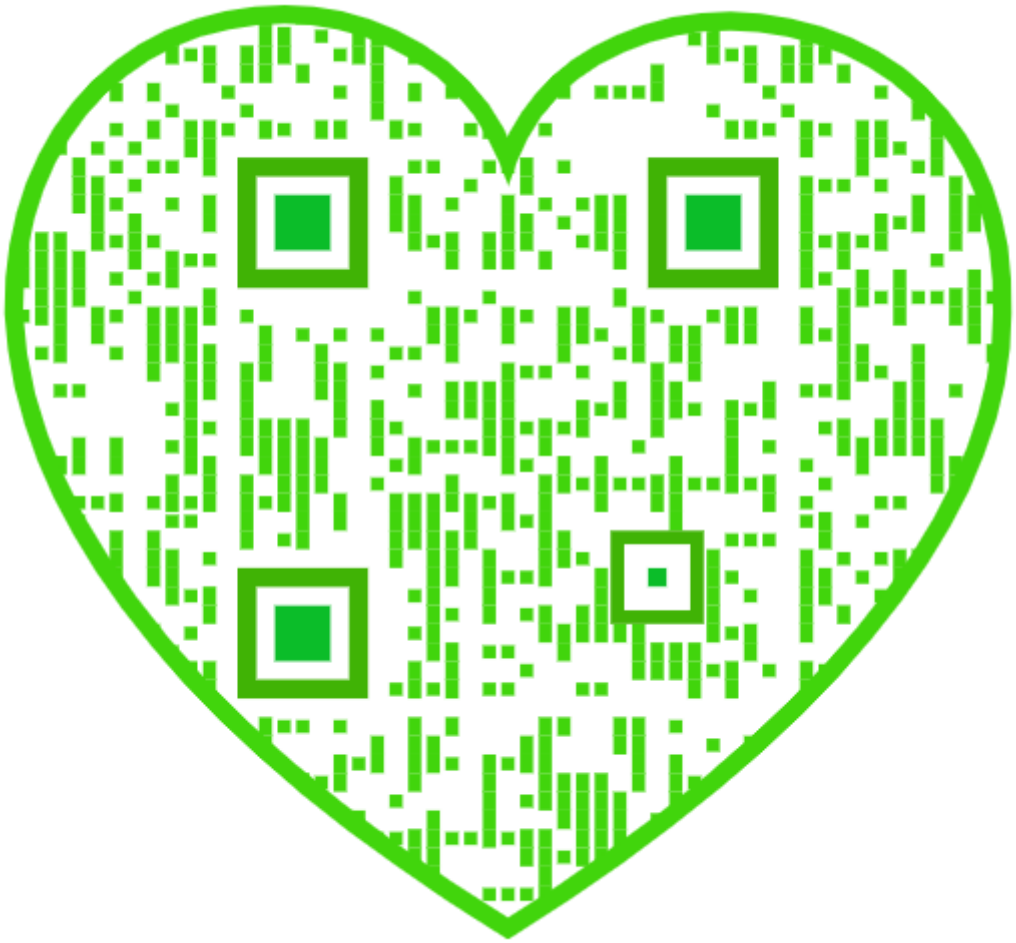

PICTORIAL JOURNALISM

The prize photo of the Hindenburg explosion on the following page is by Charles Hoff, of the New York *Daily News*. (See page 116.)

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PICTORIAL JOURNALISM

BY

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To

EUGENE MEYER

PUBLISHER OF THE WASHINGTON POST

this book is dedicated, in recognition of the opportunity he gave the authors to experiment with new techniques in the application of the graphic arts to the newspaper.

124136

PREFACE

Man has been upon this planet for at least a million years. He has been able to write for some seven thousand or eight thousand years. Yet it is less than a century that he has had plentiful printing, and the real era of mass communication through the press is only about as old as the automobile. It had to wait for modern papermaking machinery and for the development of wood-pulp paper in 1840; for a rapid method of printing, made possible by the Hoe rotary press in 1845; for rapid typesetting, with the linotype in 1884 and the monotype in 1888.

During a brief period the newspaper stood alone as mass purveyor of news. Today it has powerful competitors: the radio, flashing events by spoken word; the newsreel; very shortly, perhaps, television, bringing actual pictures for visual realization of what is occurring.

Many of us are inclined to regard the daily paper as a fully crystallized medium of communication. The truth is, it is only somewhat less recent than the motion picture and the radio and is also undergoing rapid transformation through advances in technology.

To hold its own—*and it will hold its own*—the newspaper must capitalize its strength and compensate its weaknesses. It is slower than radio; it is less vivid and "actual" than the motion picture. But it is less evanescent than either of these other forms. We hear news on the air and it is gone before we digest it; we see it in the newsreel and it flashes by before we have had time to think it over. These fleeting messages command our attention but cannot remain as a stimulus to reflection. For aid to reflection we must still turn to the printed page.

What is true of news is true of advertising. The radio "commercial" captures the listener's ear but cannot put much into his mind. However, it does get his attention. One great weakness of the newspaper is that it has lagged as an attention getter. For that reason it has seen some of its advertisers flee to the radio.

This condition has been made worse by ignorance of display in newspaper page makeup and by failure to coordinate the newspaper's editorial and commercial functions. By this we do not mean to suggest an editorial policy dictated by the advertising department, but newspaper planning which ensures maximum attention for news articles and for advertising alike. In the single generation in which they have served the masses, newspapers have conditioned millions to be "front-page readers," with only a small percentage who open the paper up and a still smaller number who see anything placed below the fold.

As every advertising specialist knows, the printed page must have more than *thought* content. It must have visual impact if it is to catch the reader's eye, hold his attention, and direct his interest from one item to another.

Technology, which challenged the newspaper with radio and motion pictures, has recently proved its ally. It has developed photography and wirephoto, making possible the transmission of photographic news coverage almost as rapidly as word coverage. It has speeded up and immensely improved the photoengraver's art and is opening up new possibilities at the present time through the improvement of stereotyping and printing and the perfecting of color photography and color engraving.

Widespread use of newsphotos will eventually oblige all newspapers to abandon old-fashioned notions of "page spotting" by means of headline type, for modern page treatments which combine the visual units of which the page is composed—headlines, body type, photos, and, on inside pages, advertising—into treatments which are dynamic and effective. There is nothing particularly difficult about modern page treatment, but it does imply more than improved typography.

It is a curious phenomenon that many newspaper editors who would not drive anything short of the latest streamlined automobile are stubbornly running newspapers reminiscent of the early American one-horse shay. They say their public does not like change. But this public which does not like change is increasingly getting its news, its entertainment, and its merchandising advice through mediums which advance and change rapidly.

Specialists are inclined to believe that all newspapers will change greatly in the next decade. It is the purpose of this book

to provide a broad base of knowledge with which that change can be implemented. Though the text embraces a variety of well-established skills, it represents a new and modern approach to newspaper planning and production. It was written to meet the growing need of newspaper workers and journalism schools for counsel in the practical applications of the graphic arts to their special field.

The contents of the book represent the results of a great deal of experimental work carried on at one time by a small group on the Washington *Post,* members of every department of the newspaper, who helped in seeking better methods of presenting and coordinating reading matter, newsphotos, and advertising. Special credit is due William E. Becker, mechanical superintendent; Samuel F. Perkins, J. Walter Oden, and Franklyn L. Offutt of the art department; John Caswell, engraver; Hugh Miller, chief photographer, and Louis Johrden, photographer (now chief photographer for Associated Press Photographic and Wirephoto Service for the United States); Harold Rhodenbaugh, artist and photographer (now rotogravure editor of the Louisville *Courier-Journal*); and E. J. Greenwald, printer. For the equipment specifications in Chap. VIII, the authors are indebted to Louis Johrden.

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LAURA VITRAY,
JOHN MILLS, JR.,
ROSCOE ELLARD.

September, 1939

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PICTORIAL JOURNALISM

Chapter I

SIGNIFICANCE OF NEWS PHOTOGRAPHY

PREVIEW QUERIES

Is today's flux of news pictures a concession to "less literate" minds?

Is it true that radio news bulletins and a fear of television lead newspapers to accentuate photography—an emphasis which began with wire-transmitted pictures on January 1, 1935?

Ideas of great thinkers—Aristotle's catharsis, James's pragmatism, Bergson's creative evolution—filter through newspapers, radio, and conversation to newspaper readers who never read a line of Aristotle, James, or Bergson. Similarly, streamlining was an engineering principle for reducing air resistance as early as 1873. Yet, in popular parlance, it is a comparatively new term. Most of us identify streamlining with speed and the motorcar and architectural design that became widespread only about ten years ago. Did streamlined news, then—picture reporting—adapt itself from an old principle in response to a basic characteristic of our modern way of life?

Is picture reporting a demand of complicated living, science-extended horizons, and man's broadened thoughts and interests which now encompass the whole earth?

With hundreds of photographs flowing into newspaper offices each day by wire, mail, and messenger, where are publishers to turn for trained, picture-conscious men and women?

Indeed, of what does such training and consciousness consist?

THE modern newspaper is like an enormous hourglass which draws its materials from the far corners of the universe, passes them through the "bottleneck" of a deadline, and scatters them to people of every degree of intelligence and taste.

Not long ago the product the newspaper distributed consisted almost entirely of word pictures of the world in action. Any record other than the testimony of words was regarded as a concession to less literate readers. This false viewpoint has been rapidly swept away. Editors have come to see news pictures, not merely as a means of supplementing stories with illustrative ornament but, further, for what they are: the most precise, economical, and effective *reporting* of human events that there is.

It once took columns of skillful writing to describe the gaiety and elegance of a social occasion, the misery and suffering entailed by a foreign war, the swift beauty of a sports combat. Now a few inches of halftone on ordinary newsprint tell us the story.

Newspaper executives, many of whom still regard journalism as uniquely a writing profession and photography as an unwelcome interloper in the field, are apt to believe they have been forced to the more pictorial presentation of the news by the competition of radio reporting, with television in the offing, and of the newsreels.

The truth goes much deeper. The development of modern photographic and engraving processes might not have been so rapid and so amazing if what they had to offer had not so well answered the demand of the modern mind for a quality best described as "instantaneousness."

As living has become more complex, as the boundaries of communication have been pushed farther and farther out, until every man's thoughts and interests encompassed the entire earth, the mental and emotional reaction has been one of stripping away all that was superfluous and cumbersome, in order to arrive at essential things as rapidly as possible.

In the arts, in architecture, and in the applied arts, this speed or "purism" of the modern mind has resulted in forms which the artist is apt to call "elemental" and which the everyday man dubs "streamlining." The word is a graphic one and has come to be applied to everything from a skyscraper or an automobile to the latest forms of layout for the newspaper front page. Perhaps the most streamlined of all is modern thought itself. It has cast off all the curlicues of olden days and insists on arriving at beauty, at fact, and at knowledge by the shortest route.

That is the surest reason why picture reporting, the "instantaneous" route to realization of the world's events, has succeeded in pushing column after column of mere words out of the daily paper. So inevitably has the transition taken place that it may be said to have happened in spite of the reluctance and opposition of men of the old newspaper school, rather than with their cooperation.

The newspaper has been impelled to try out new methods of holding its readers as it saw those readers turning for what they really wanted to the radio, to the motion picture, and, still more

recently, to the picture magazines. The radio news broadcast, in terse, dramatic streamlining, whisked its listener to the hot spots of the globe and told him precisely what was occurring there. Often the vital news it brought him seemed lost in dreary column on column of gray newspaper type. Lacking hours to spend poring over fine writing, he might not have got the complete picture at all. And the radio did more than this for him. It brought him "flash" bulletins on big events long before any printed newspaper could reach him. Of course what the news broadcast very seldom did was to give him *all* the news. Its rapid-fire method hit only the high spots. It created in his mind a sort of news skeleton, which he could fill in later with the reading of a thorough newspaper account.

Yet even this job of elaborating the news was not to remain the newspaper's sole province. The newsreel, following hard on the heels of the broadcast, often gave a kind of elaboration that was swift, detailed, and highly digestible by moderns.

There used to be much talk about the newspaper being "doomed" as an institution. As a matter of fact it has never been doomed except in proportion to its inability to adapt itself to a changing function. Now, after years of obstinate resistance, the journalism profession is waking up to the fact that it has lost certain things and gained others, that it has still a tremendous role to play and unlimited means for fulfilling its opportunity.

The newspaper will never again be the *first* source of news to its intelligent reader. He knows how to find news faster than through its columns. He knows how to *realize* world events more deeply and fully than through its pictures. He knows what is happening the instant it happens, and later he can hear statesmen talk, happy people laugh, and injured people groan if he will, as the very world itself passes in swift action before his eyes.

When the thoughtful man turns from these streamlined but evanescent forms of news communication, he still wants an organ of record, analysis, summary, in order to make his conception of news accurate and complete. But he wants this record to be streamlined too—terse, colorful writing, news photography that does a reporting job, and page layout that serves as a swift guide to his eye and mind, not jumbled disorder of reading text and halftones. The modern newspaper must meet these demands. Often it does not do so because the problem itself is not clearly

understood. Many editors still regard news pictures as illustration rather than as reporting and streamline presentation as a matter only of improved typography.

The organization of the newspaper for its function of *writing* the news is traditional. The raw material for the stories which fill its columns pours into its office through a network of services extending throughout the world. Fact gathering is performed by highly trained specialists, and highly trained writers and editors handle the material after it arrives.

Consider for a moment the aspect the average newspaper office presents from the standpoint of the written news. In the city room local news gatherers and rewrite men, directed by the city editor and his assistants, are busily putting on paper the results of the harvesting of the local field. From the telegraph room come the noise and clatter of the automatic teletype machines exuding endless ribbons of copy. The telephones jangle as those still in the field—police reporters, staff reporters, feature writers, suburban news gatherers—clamor for their place in the editions. Sports writers are pounding out their impressions of the big fight or the baseball game, a "society" staff is describing the gowns worn at reception or wedding or cocktail party, editorial writers and special writers and critics and columnists of every sort are doing their personal impressions and interpretations of the news.

To view all this one might be inclined to think that *words* were the newspaper's unique product. Perhaps such an office has only one or two photographers and no real organization for the pictorial reporting and editing of the day's events. Yet a glance at the printed paper may show that halftone illustrations occupy a fair amount of valuable space in its columns.

On many newspapers today, picture news gathering is still regarded as incidental. The daily is illustrated with mats sent by the press associations and syndicates. The Sunday paper gives half its column space to dull cabinet photographs sent in by subscribers, each of which has interest for only a small group of readers. Owing to an absence of layout, the pictures published, far from adequately illustrating the stories, may serve as a distracting element.

Chaotic conditions in respect to pictorial reporting prevail in many offices, but not in all. Today the press associations are picture-conscious. Machinery for gathering and distributing

newsphotos from these great agencies of news is as highly organized as that for the distribution of copy. The flow of pictures into the average newspaper office keeps pace with the flow of words. Pictures are taken and flashed across the continent in

Photo by John Mills, Jr.

FIG. 1.—Newsphotos compete for space with news stories. Often the picture wins because it compresses much drama into little space, as when this prominent woman greeted Mrs. Roosevelt and the late Jane Addams with a kiss.

less time than used to be required to get them from a few blocks away—pictures of war abroad and labor wars at home; pictures of disasters and floods and heroic deeds and scientific achievements and momentous happenings among the humble and the great; pictures of Hollywood doings and seaside carnivals and winter sports; pictures of hunt meets and prize fights and baseball matches; the whole panorama of our many-sided lives.

Such material is highly competitive with the word reporting of similar news. Reader column space in the newspaper is governed pretty strictly by the amount of advertising linage. Unless advertising expands, the editor must keep his paper down to reasonable size. If pictures are used, reading matter must be displaced (Fig. 1).

The editor or publisher, finding his paper swinging slowly but surely into step with the demand for pictorial news coverage, may wonder whether an organization built to serve only as a writing machine is not antiquated today. He may find on inquiry that none of his desk men is picture-conscious, that his reporters are all of a purely writing turn of mind, that no member of his staff is alive to the very urgent fact that the success of the paper must be grounded on a better knowledge of photography, engraving and reproduction processes, and the graphic arts.

If he is wise, he will remodel his organization to take care of the pictorial phases of journalism. He will expect of his editorial staff that they reeducate themselves in the new techniques. And he will turn to the journalism schools for graduates who have technical training as well as writing ability and who are possessed of a sense of the modern values in newspaper production.

A. APPLICATION EXERCISES

1. Clip from a newspaper published within the last ten days a picture which *reports news* instead of merely illustrating or ornamenting a news story. Write a news story telling the facts which seem to you immediately clear from this picture and from its overline and underline. Make your story terse and vivid, trying to give the reader with words as much of the picture's imagery, action, personality, and color as you can.

2. Assuming that forty words will occupy one column-inch, compute the column-inches which would be required to replace in type the color, news, and interest of this picture.

3. Be prepared to discuss in class the comparative reading time, interest, and vividness in the copy you have prepared and the picture selected. Evaluate the "instantaneousness" of the picture.

4. Clip and mount on separate sheets of copy paper two pictures which merely illustrate or ornament news. On the margin of the mounting, note briefly (*a*) how the picture *merely ornaments* or *merely illustrates* the news to which it pertains; (*b*) what sort of news picture might have been reasonably practical for the paper to have published *to report* this news.

5. Clip and mount, as for Exercise 4, four pictures which you consider good examples of picture reporting. Note on the margin brief but specific reasons why you consider these pictures good examples.

B. CHAPTER-ORGANIZING QUESTIONS

Be prepared to discuss orally:

1. What complexities and extended facilities for communication have brought a reader demand for streamlining of what meets eye and mind in the newspaper?

2. Precisely what does "streamlining" mean?

3. What characteristic in human nature leads some older newspaper men to consider news photography as an interloper and a concession to superficial readers?

4. What, if anything, do you feel that the newsreel and news broadcast give that reader interest demands? If you think something is lacking in the news portrayal by movie and radio, would television satisfy the lack? Justify your answer.

5. Most of the great newspaper properties of America were built to outstanding success not exclusively by improving on the old journalistic techniques, but by sensing new reader demands and new clienteles which less acute imaginations of competitors had failed to discern. Thus, the *natural* history of American journalism may be more revealing than its chronological history. With this in mind, discuss new emphases in modern life and new competitors for reader interest which face newspaper publishers today. Discuss this point of view in connection with the prophecy that the "newspaper is doomed by developments in radio and movie."

6. Discuss the news value of cabinet photographs.

7. What governs the number of pages a newspaper prints? How does this space-determining factor influence the news quality and demand for reproducibility in pictures, with press associations picture-conscious and the flow of pictures into newspaper offices greatly increased?

8. How in general will a wise publisher meet this increased and increasing availability of pictures?

Chapter II

PICTURE EDITING

PREVIEW QUERIES

When progressive demand for speed put steel bridges across vast rivers to compete with ferryboats, smart investors reorganized their stock schedules. Those who did not, sank in the gap of change. What reorganizing procedures are newspapers today using to span the flow of pictures from all corners of city, nation, and world?

Have news and city editors taken on extra loads with the advent of picture emphasis, or have several new jobs come into editorial rooms through the shutter of reporting cameras?

What combinations of new picture jobs can efficiently be managed on smaller papers which cannot afford as many photography executives as the metropolitan journal?

Where do newspapers get pictures which their staff photographers cannot take, their regular syndicates do not furnish, and which free-lance contributors do not send them?

How does wire transmission of photographs work?

Major floods last longer than spot news shots of rising water, submerged buildings, and collapsed bridges can hold major interest. What sort of pictures retain interest after the edge is gone from photographs of property damage?

How do newspapers transmit wire photographs from distant news scenes in weather in which it is impossible to fly the prints to the usual points of distribution?

As pictorial news coverage has taken its place beside word coverage of events, it has forced many changes in the organization of the newspaper staff. The smaller papers have put cameras in the hands of their reporters, supplementing this sort of picture reporting with the work of one or more expert staff photographers whenever this was possible. The larger papers have developed an organization for taking news and feature pictures and for editing, routing to the proper departments, and utilizing fully the stream of pictures that come in daily from the news associations and through other channels. Such an organization parallels the news and feature departments of the paper and cooperates with these at every point. The size and needs of the

individual newspaper must determine just how important its pictorial staff shall be, but even the newspaper which does not employ a single photographer can learn something from the procedure now followed on many of the larger sheets.

Just as the city editor directs the reporters whose work is to cull the news from the local field, so, on the metropolitan newspaper, the studio head directs the staff of cameramen, who cover the news pictorially. In the days when few pictures were used, these cameramen were assigned from the city desk. They still are on the smaller papers, but wide use of pictures in all the departments of the paper has today made such a system impracticable on the big dailies. It insured prompt action on big news stories, perhaps, but it did not provide adequately for coverage of pictorial feature assignments, for gathering of pictures for Sunday roto and magazine pages, society, and sports, and for the needs of the advertising department.

Greater pressure on the newspaper's photographic staff brought a directing head of the studio, a man who, like the city editor, kept his regular assignment sheet and knew where each of his men could be located at any time. Many studios, in addition to the record of assignments, now use a wall map of the city, with colored pins showing the spot where each man is working. The photographer calls in after finishing each assignment and before he starts back to the office. He may be able to catch a big news story that has just broken, before a photographer sent out from the studio could reach the scene. In a big studio of this sort, one man at least is kept in the office at all times to do developing and printing, and motorcycle messengers are often used to rush plates or films in from the cameramen in the field and fresh supplies out to them.

The studio executive, with proper planning, is in a position to get spot news pictures with great speed and to utilize the services of his men to greatest advantage. He will keep a "future book" or file in which he records a wide variety of assignments which can or must be made: requests from the editors of the various departments for feature pictures or coverage of special events; a list of houses which must be photographed for the Sunday real estate section; conventions, club events, and sports events with the date and hour and place where they will occur. A card file arranged by dates will provide him each morning with a view of

the pictorial coverage, other than spot news, which his newspaper requires for that day. The future file of the studio, in addition to its cards arranged by dates, will contain a section of suggested feature assignments and picture continuities for the rotogravure or for other sections of the daily or Sunday paper. It is easy to jot an idea down on a card as it occurs and file it away for future coverage. Such ideas, when kept on tap, save much valuable time.

Spot news, of course, must be handled as it occurs, and the better organized the photographic studio is the faster the head will be able to get his men into action on a big news break. He need not keep his men in idleness in the studio, waiting for something to happen. By training them to keep in constant touch, he will have them on call at any time. The cameraman in such a well-planned studio does not travel to a far-distant corner of the city to get a picture for which there is no urgent need, returning several hours later with that one shot or handful of shots. Instead, he starts out from the studio in the morning with a day's route carefully laid out for him and gathers as he proceeds pictures that are needed for many parts of the paper. If a big news story breaks, he abandons this routine coverage and hurries to the scene. Frequent calls to the studio insure his being available for spot news. Smaller cameras, utilizing film instead of plates and replacing the old cumbersome equipment of the news cameraman, have of course made this sort of procedure more practical.

On the large daily with an important photographic staff, the city editor's responsibility for pictures consists in notifying the studio head immediately when a news story breaks. The cameraman may call at the city desk on his way out or may telephone the city desk for further information concerning the story to which he is assigned. He may accompany a reporter, but he takes his actual orders from the head of the studio, who is himself a "city editor for pictures." Dissatisfaction over a news assignment accidentally "muffed" may cause a city editor to attempt to assume authority over the cameramen, but where the paper is large he cannot direct the photographic staff efficiently.

So far we have talked only of local picture coverage. As the use of pictures extends to every page of the paper, and the picture material streams in from such agencies as The Associated Press,

Acme, Wide World Photos, and other services taking pictures around the globe, the newspaper making wide use of such facilities may still further expand its organization.

Most large papers have a picture desk or art desk located in the city room, where pictures for each edition of the paper are delivered from the photo studio and from the services. The man who operates this desk is in close touch with the city and managing editors as well as with the studio head, and, as soon as the editor has made his selection, he scales the pictures to their proper sizes and sends them through the art department with whatever instructions are necessary regarding retouching and engraving. His work often has to be done with great speed, and, as he is the one person in the city room who is closest to the pictures and to the news which they represent, he is usually the one best fitted to write the captions.

The picture desk on most newspapers was until recently merely a part of the city-room machinery, and its function was only that of scaling and otherwise preparing the photographs that were to be used for daily stories. When these spot news pictures had been handled, there remained an ever-increasing number of shots which went into the discard but which could have proved useful for other parts of the paper, the women's pages, the Sunday magazine, the advertising department, and others. Some system had to be devised insuring better distribution and use of the photographs for which the newspaper was paying.

The Picture Editor

Thus there has come into existence on many newspapers a new executive: the picture editor (Fig. 2). The picture editor's concern is to provide art for all departments of the paper, starting with the daily news pages. He has supervisory authority over the photographic studio and over the picture desk. He cooperates with the city editor, the woman's-page editor, the sports editor, the Sunday editor, and many others, offering suggestions for improving their pages and their layouts, and securing the pictures they need, either by selection from those on hand or from the newspaper morgue, or by special assignment to the photographic studio or to an outside photographer or service. A picture editor's purpose is to improve the appearance of the paper, and he can often accomplish this with great economy

simply by being in a position to see the pictorial needs of the paper as a whole and to plan for them.

Of course he never loses sight of the fact that news is the backbone of the paper. He is above everything a *news editor for pictures.* He watches the big stories that are breaking locally and

Photo by Harold Rhodenbaugh.

FIG. 2.—The editor handling pictures cooperates with all departments of the newspaper, directing the daily flow of newsphotos into the proper channels.

those that are flashing over the wires from distant points and makes sure that pictorial coverage is keeping pace with word coverage and that his paper is ready with important pictures on the deadlines. A picture scoop by a rival paper can be an important thing nowadays. So his resources are often taxed to the utmost to get the pictures in in double-quick time.

Though primarily concerned with news shots, the picture editor watches the stream of incoming photographs for all sorts of other things. He spots a picture of a local man who has won a bridge tournament in another city and routes it through to the bridge

editor. He buys a photograph of a woman's club banquet submitted to him by a local free-lance photographer or studio, because he knows that the newspaper's own cameramen did not cover this event and that the Sunday club column needs just such a shot. He sorts out the sports pictures sent in by the picture services and rushes them to the sports editor before they have had a chance to grow stale. Without his efforts, much valuable material would be wasted and the pages of the newspaper would be more dull than they need be.

Many newspapers now cover world events in a daily picture page. The picture editor makes the selection for this and assignments where these are necessary. The page is usually laid out at the picture desk or in the art department under his supervision. He may write the captions for it and later make it up in the composing room.

All this may sound like an important organization for handling newsphotos. Needless to say, in many offices no such elaborate plan is needed, and several of the jobs here described may be combined into one.

The first and easiest combination is probably that which retains the post of picture editor but requires him to operate the city-room art desk himself. On a still smaller paper, he also becomes the head of the studio. In this setup, he assigns the cameramen, prepares and scales the pictures for the daily and puts them through the art department, and likewise helps to plan feature pictures and layouts for the special sections and the Sunday paper. If facilities are still more restricted, he may be required to do the retouching, on papers which do not employ a regular art-department staff. He then does all the physical work of scaling the pictures, making layouts, writing captions, and seeing that the pictorial copy is properly handled by the engraving plant.

The picture editor's post, whether the paper be large or small, is an important one. It requires a man with keen news sense, writing ability, knowledge of photography and engraving, and much of the technical skill of the art-department worker. He is the liaison officer for many departments and the center of pictorial reporting for the newspaper.

But what of the paper which has practically no photographic facilities, yet which still uses pictures? There are many news-

papers which employ only one or two photographers, and many others which have no professional photographers at all. These papers receive pictures from the press associations, they may have reporters who do double duty as cameramen, and they probably use as well a great many photographs of local citizens and events, submitted to the editors either by the readers themselves or by professional photographers in the town.

Often the handling of pictures on such newspapers is very badly managed, and as a result editorial workers come to regard the photographs published in the paper as having little importance. A survey of the column space these pictures occupy and the reader interest they arouse—or fail to arouse—may convince the editor that the white space is being poorly utilized.

In learning from the metropolitan newspapers the editor must remember one thing: most of the functions of the studio head, the art-desk man, and the picture editor must somehow or other be filled if the appearance of the pages is to be improved. However, he may not create any of these posts; the managing editor may supervise the picture situation himself. He will plan better art for the various parts of the paper, make assignments or suggestions to the reporters who use cameras, arrange with local photographers to bring in pictures of a more lively and interesting sort than formerly, sort over daily the photos from the press association services, educate the other members of the editorial staff to be picture-conscious, and thus, in many directions, take the picture problem in hand.

Or he may employ a picture editor-photographer, who will fulfill all these functions and take some local pictures as well.

Or he may make a member of the editorial staff who is picture-minded responsible for the whole picture situation, under his own close supervision, while relying on his reporters who use cameras for local news coverage.

Many plans are possible, but one step seems advisable: Centralize the handling of pictures on the paper as far as possible. The editor of each section will wish to handle and select the photographs for his pages, and he should do so whenever he can show results, but all departments need the cooperation of one person to help them to secure pictures from outside sources, from the services, and from the cameramen on the paper.

The city editor may be able to handle the whole picture situation for the newspaper successfully and often is required to do so. But he is not apt to see the problem as any except one of getting photographs for the biggest news stories. He can hardly be expected to apply initiative to the task of getting better art for the Sunday society section or the sports pages, for instance. Obviously this means enlarging his work outside the useful boundaries his position implies.

Unless the managing editor performs the function of picture editor himself, he should assign it to someone who will work closely with the city desk on news coverage but who will know that his duties touch *all* departments of the paper.

Sources of Newsphotos

Such a man will not only distribute wisely all pictures arriving through the normal channels but will be familiar with all possible sources of pictures, so that he can secure whatever is needed promptly at any time.

Roughly classified, these picture sources are as follows:

Newspaper cameramen.
Local commercial and portrait studios.
Local amateur photographers.
Newsphoto services, which supply:
  Photos by mail service.
  Wirephotos.
  Picture mat service.
Picture agencies, which specialize in:
  Feature pictures.
  Historical pictures.
  Foreign pictures.
Professional free-lance photographers:
  Taking pictures on order.
  Specializing in certain classes of pictures.
Professional color photographers.
National advertising agencies, which can furnish:
  Travel pictures.
  Industrial pictures.
  Fashion pictures, and many other special subjects.
Publicity pictures from:
  Hollywood studios and their eastern representatives.

Radio broadcasting companies.
Airlines.

Chambers of commerce, which will furnish:
Scenic views of their municipality and region.

United States Government departments:
Army and Navy departments have huge picture files.
Other departments can furnish pictures on scientific subjects, bird and animal life; housing, farm conditions, soil conservation, engineering projects, etc.

Public library:
Pictures in books can be photographed.
Picture collection.

Newspaper's morgue:
Pictures from all sources have been classified and filed here.

Other newspapers:
Local and out-of-town papers often consent to sell pictures.

News and picture magazines which:
May resell special feature pictures which they published exclusively.

Art galleries and museums which:
Furnish free or sell photos of paintings on exhibition.

Foreign chambers of commerce in New York, which:
Give or sell many feature pictures showing activities of all natures in various lands—French Chamber of Commerce for France, Amtorg for Russia, etc.

Corporations, industries, railroads, etc., which:
Can be written to directly for pictures they may have, on such subjects as auto manufacture, steelwork, lumbering, etc.

In connection with these picture sources, the student will find a list of addresses of services, agencies, and photographers in the *Editor and Publisher* Year Book, but this should be considered merely as suggestive. The picture editor should build up his own card file of picture sources he may need to call upon, with notes on the type of photos each can supply.

Wirephotos

We have mentioned a number of important sources of newsphotos and feature pictures, to which the picture editor will have recourse at various times to fill the needs of the many departments of his paper. Undoubtedly the greatest sources of news in picture form are today and will continue to be the organizations which service photos by wire. The modern technical advance

which has made it possible for pictures of news events to flash across the wires with the same speed as verbal messages, from one side of the continent to the other, has counted for more than any other single factor in making photographic news reporting practical.

The system was perfected by engineers of the Bell Telephone Laboratories of New York, and was first put into operation by The Associated Press on January 1, 1935, for the sending of a daily picture service by wire. This service today maintains a regular network covering 10,000 miles of wire and delivers to newspapers in its organization pictures of outstanding news events within a few hours after they occur. Portable photo-sending machines using ordinary telephone wire for transmissions have been used consistently now since the spring of 1936, and portable receiving sets since August, 1937, principally by newsphoto services and more frequently of late by individual newspapers. The newspapers must lease their machines from one of the systems maintained by newsphoto services. By means of these machines newspapers in large cities or covering a large area can now telephone their own pictures into the office from the outlying districts.

Most of these portable machines will send a 7 by 9 print from which a 7 by 9 negative is received. One newsphoto service, however, uses a portable machine which sends a 4 by 5 print which is enlarged during transmission so that an 8 by 10 negative is received. These machines have proved themselves invaluable in weather where it would be impossible to fly prints or negatives to points of distribution or in obtaining prints from inaccessible areas.

How Wirephoto Works

Frank B. Noyes, president of The Associated Press, said of wirephoto at the time of its inauguration that it was "perhaps the most important development in journalism since the first news dispatch was sent over a telegraph wire in 1846." And he added:

> A dream cherished by newspapers for many years is realized. Story and picture travel side by side over the wires and into the pages of the daily newspaper. Wirephotos join the printed word to tell the news more rapidly, more graphically, more completely, and with the honesty and fairness of the camera.

To understand how wirephoto works, one must forget that a photograph represents a scene or image of real life and see it instead as a surface with varying tone values. If this surface were divided up into thousands of tiny squares, each square would reflect a measurable degree of light. Each minute square, if the light it reflected were converted into an electric impulse, could travel as an independent message across the wires to a distant point. If on arrival it were reconverted into light which caused an exposure on a negative, it would reproduce its original tone value. If the thousands of tiny squares into which the original surface had been divided were thus transmitted in regular sequence, causing exposures in the same order on the negative at the receiving end, a complete negative of the original would be obtained.

That, in a general way, is the idea behind wirephoto. A beam of light $\frac{1}{100}$ in. square strikes the upper left-hand corner of the newsphoto print that is to be transmitted and is reflected from the tiny square on the picture to a photoelectric cell. The tone value of that particular square of the picture will determine how much light is reflected, dark tones reflecting little, lighter tones more.

The photoelectric cell is able to convert light into electricity, which is transmitted by wire. If a small amount of light is reflected to the cell, it is converted into a weak current, while a larger amount of light results in a strong current. The strength of the current will in every case, then, be proportionate to the tone value of the square from which the light was reflected.

When the electrical impulse from the first little square arrives at the receiving end, it operates a shutter which opens to a width proportionate to the strength of the current. The opening of this shutter exposes the portion of the receiving negative which corresponds to the square being transmitted. If the current is strong, it will open the shutter for a full exposure; if weak, it will permit less light to strike the negative. On any particular square of the negative the exposure will reproduce the value of tone of the original square.

As soon as the first square has been registered, a second follows, until the whole receiving negative has been exposed in varying degrees over its entire surface. The negative can then be developed and printed to obtain a print exactly like the original.

In the actual transmission of a wirephoto, the original picture and the receiving negative are placed on revolving cylinders, perfectly synchronized in their motion. These cylinders revolve at a speed of 100 revolutions per minute, so that the light beam travels rapidly over the surface of the original in spiral fashion, transmitting one tiny square after another to the photoelectric cell, thence over the wire to be recorded on the negative at the other end. Eleven square inches of a photograph are transmitted in one minute.

In each of the cities where it maintains a permanent wirephoto station, The Associated Press has an equipment room with a special power plant. Each city is equipped with a sending and receiving apparatus, with a "bay" or switchboard for each. This bay contains a talking circuit by means of which the men in charge at all the different points of the national network can engage in conversation, talk over the newsphotos each has to transmit, and determine which pictures should take precedence. Finally a signal from the control station in New York serves as a warning that transmission is about to begin. A few seconds later a button is pressed on the sending machine, which instantly starts all the receivers in the network.

The receiving machine in every station is loaded with a negative which can receive any size picture up to 11 by 17 in. This negative is fastened around the cylinder in a lightproof container and is exposed to light from a lamp focused through an aperture or shutter $\frac{1}{100}$ in. wide, which remains nearly closed when the area of the original being transmitted is very dark, but opens wide when the area in transmission is very light.

The development of the portable wirephoto sending and receiving sets almost immediately doubled the field of this method of picture reporting and is rapidly making it available in every corner of the nation, however remote. Both the portable transmitter and the receiver will operate on any telephone circuit and on any available electric current. The receiver, which is no larger than a radio cabinet, is designed to eliminate the necessity for a control bay. No synchronization is needed between stations, since the mechanism operates at a speed which is constant.

In the short space of time in which wirephoto reporting of the news has operated, there has been a great advance in the quality

of the pictures produced. The earliest pictures were marred to some extent by the fact that the scanning lines caused by the light beam which transmitted the picture were visible in the final print. Today these lines are imperceptible to the naked eye, and photos received are as good in tone values as those that were put on the wire.

Another cause for improvement can be found, not in the mechanism of transmission and reception, but in the increased picture-consciousness and skill of men on newspapers everywhere, who have been affected by this vast organization for picture dissemination. One of the early weaknesses of wirephoto lay in the fact that many of the pictures taken and put on the wires by member papers were neither good news nor good photography. That is hardly the case today. Yet it is evident that the greater the photographic skill on all newspapers, the better will be the crop of pictures received by all. The small-town cameraman perhaps has more incentive today than formerly. Big news may strike anywhere, and he may easily be the one to take the newsphotos which will be the national sensation of the year.

The Associated Press has greatly improved its organization for pictorial news coverage and now has highly skilled photographers at strategic points throughout the country, ready to fly, with portable sending apparatus and sometimes with portable darkroom, to the scene of any big news story. Wide World is likewise covering the country with portables, for the most part mounted on trucks, from which transmission can be made.

Something of the romance and humor of this great new science and profession of pictorial reporting is recounted by Louis Johrden, chief photographer of The Associated Press Wirephoto network, who has been instrumental in training and organizing expert cameramen for this service throughout the country. Johrden recounts the following incidents in connection with wirephoto coverage of big news:

A newsphoto-service cameraman was sent to a certain bureau to fill in for the regular photographer there, who had been sent on a long assignment outside his area. He had a late assignment that evening and had just finished getting out his print service, when he received a telegram from the New York office to stand by for a quick trip on a mine disaster story. The technician who operated the portable wirephoto machine was summoned and the photographer gathered equipment and

supplies for almost anything he might encounter on the assignment. Another telegram confirming the assignment came through shortly, and technician and photographer were on their way in their auto with the portable machine, cameras, trays, paper, etc.

The distance to their destination was about 180 miles over mountainous roads on a winter night. The trip ended in the town nearest the mine at 11 o'clock the next morning. As they drove into town, they headed for a sign indicating that a combination florist-photographer was in business. An unusual tie-up, but they needed a phone line and darkroom. The deal for use of both was completed in three minutes.

The technician stayed to hook up his set and make preliminary tests for sending, while the photographer started the 11-mile journey from the town up a creek to the mouth of the mine. Luck was with him. He had been at the mine ten minutes, just long enough to take a few general views and pictures of those in charge of rescue operations, when the first bodies were brought to the surface. There were 19 dead, but the cave-in was so complete only two bodies could be brought to the surface at a time. The photographer made his shots of the first bodies being carried from the mouth of the mine by rescue workers and then took up his position to get human-interest pictures, women crying, others with stony faces as if stunned, children pulling on their mothers' skirts, innocent and wondering.

In less than an hour he had made his basic shots and returned to the florist's cellar, which was misnamed a darkroom. It was hardly dark enough for the fast panchromatic materials used by the news photographer, but nothing better existed. He developed fourteen negatives in a tray, shielding it as best he could with his coat. How did he time them with no inspection light or timer clock? The technician, located with the portable wirephoto machine in a bedroom on the first floor above, kicked on the floor when the five minutes had expired; otherwise the photographer would have had to count to 300 as accurately as he could time it to seconds.

The florist-photographer's enlarger was a marvel. By pinning the enlarging paper on the easel with corsage pins appropriated from the florist part of the establishment, it was possible to expose a print. The enlarger could not be used to print wet negatives, because of the way in which the negatives must be held in the machine. They had to be wedged in. A trip to the corner drugstore produced a small hair-drying machine which dried the negatives in record time.

A print was made, captioned, and started in transmission on the portable machine in the bedroom. While this transmission was in progress the other prints were made and captioned ready for transmission. A total of six transmissions was made and reported as satisfactory.

One opposition newsphoto service used a different method on this particular story. They elected to fly a regular photographer into the town. The nearest landing field proved too small for the plane to get into successfully. The pilot wheeled to avoid hitting trees at the edge of the clearing, hit the ground with the tip of one of the wings, and tore away the fabric. The photographer obtained a ride into town while the pilot was effecting the repairs, but by the time he had got his shots and returned it was dusk, and the pilot reasoned that if he could not get into the field by daylight he could scarcely get out by dark. They decided to wait for dawn to take off, a logical enough plan, but one which worked out disastrously for them, since the following morning it was sleeting and snowing and the take-off was impossible. The photographer was obliged to travel back by train with his precious negatives, and arrived a day after the wirephotos had been published throughout the nation.

It is true that the photographer and technician with the portable wirephoto machine were likewise marooned by the blizzard. When their complete coverage of the story had been put on the wire the next day, they spent two days in ice and snow on mountain roads. But they had "under their belt" one of those things which becomes more rare every day—a "scoop." Wirephoto had transmitted the only pictures which would reach the nation for the next 48 hours.

The Flood Story by Wirephoto

Johrden gives another example of how a modern newsphoto service "goes over the top" on a spot news story of national importance. The story concerns the floods which engulfed the Ohio Valley in the spring of 1937. It was a story of such magnitude and embraced so many major cities, taking toll of lives and causing millions of dollars' worth of damages, that it affords an excellent example of large-scale pictorial reporting. Johrden recounts:

When the first high water made its appearance and on strength of predictions from the weather bureau, although the regularly assigned man was already on the job in that area, two extra cameramen, one exclusively a photographer and the other a cameraman-editor, were flown into the flooded area, with their base at the principal city. The editor's job was to supervise the operations of the two "leg" men, develop and print the service, write captions for both the mail service and the portable picture-sending machine, expedite all the negatives to the nearest point of distribution for reservice, and cover any angles of the story he could, without leaving his other duties unattended to.

As the flood crest moved along and more areas became inundated and transportation facilities paralyzed, more men were sent, not only into the stricken areas, but also to those towns where extensive preparations were being made to combat "old man river." By the time the height of the flood was reached, approximately 20 cameramen were spread out over an area extending from Pittsburgh, Pa., to St. Louis, Mo. Several editors and portable picture-sending machines were also out on the line of action by this time.

The problem of keeping all these men supplied with materials as well as money and proper clothing then presented itself. Transportation was at a standstill. There was only one means—to fly. Films, bulbs, paper, boots, heavy clothing, money, candles (since power was cut off), flashlights, and even drinking water were sent in by plane to the marooned staffs, and the exposed negatives were flown to points where national mail or further wire distribution could be accomplished. To keep pace with expected developments in the flood, extra supplies were sent into the cities expected to have excessively high water.

After the first few days of the flood, the "edge" had been taken off views showing just high water, and the photographers were instructed to bear down on human-interest shots of animals, refugees, and rescue workers, plus only outstanding views of high water and rescue operations. This order brought forth some clever composition on the part of the photographers, and several photos resulted which were so striking they received nation-wide publication and acclaim and will stand up for many years as among the best newsphotos of their time.

Thus, by perfect coordination between the cameramen and editors in the field and the desk men who "rode the report" in the home office, miles from the flooded area, a picture story was made available to readers of newspapers in the modern manner—that is, fresh pictures each day to report the day's latest chapter of the news.

These dramatic instances of picture reporting have been included in this book, not only because they throw light on the romantic elements of newsphoto coverage, but also because they show to some extent the development of a new profession and the kind of training which will be needed in the future by men who hope to rise to the top in this new journalistic career.

It is evident that a great new organization for news coverage has sprung up, virtually overnight, the twin to the organization which existed for written news coverage. Such a pictorial news-gathering machinery requires men who know a great deal more than how to snap a picture. They must be trained to take pictures and to judge pictures for their news values and as copy

to be reproduced by photoengraving processes and printed; they must have executive ability and writing ability. They must have a thorough knowledge of all the uses to which newsphotos are put, so as to be able to supply all existing needs. In other words, they must know something about all departments of the newspaper, all methods of reproduction, and the kind of pictures which are appropriate in every instance.

The big men in the newsphoto services got their first training on local newspapers. And today the smaller papers are indispensable links in the great national systems of pictorial reporting. These papers need good photographers and an organization equipped to handle newsphotos in their territory.

A. APPLICATION EXERCISES

1. Select a copy of a daily newspaper, at least 16 pages, published within the last month at a town or city in which you are familiar with the principal streets and locations. Excluding spot news stories, list ten pictures actually published, or pictures which might well have been published, in that issue to report feature, real estate, local motorcar, society, industrial, or advertising news. Make out an assignment route for a staff photographer to follow in making these "shots" with least loss of time.

2. Who, in a metropolitan newspaper organization, would make such an assignment and routing? To what news executive would the photography executive making this assignment correspond?

3. Choose a local spot news story in your selected paper which broke unexpectedly. Assuming that all the paper's photographers are out on routine assignments, explain what facilities should exist in the office for getting pictures of this spot news as quickly as practicable.

4. From the columns of this paper, list five good picture possibilities which you would put in a "future book," if you were the studio executive.

5. In Missouri in 1938, a famous weekly newspaper, 119 years old, faced financial failure because road improvements were distributing metropolitan papers into its county field and two strong small-town dailies had grown up in its area. This weekly had been edited, one time or another, by three nationally known Missourians. It had a fine heritage, tremendous potential good will, but insufficient interest to meet its competition. Many said its field and its mission were played out. Its publishers owned a splendidly equipped print shop with a $6000 photoengraving plant. They decided to turn the paper into a country tabloid: five 14-in. columns for each of 16 pages, *with from* 30 *to* 40 *news pictures* of local county news in each issue. Except for three signed local columns and the country correspondence, all news was local and was reported with pictures, overlines, and underlines. Half-column cuts were run of columnists and country correspondents. At present the paper is succeeding.

Suppose you were planning such a paper for a farm county in your state. List ten hypothetical pictures you would try to get for next week's issue.

6. To what office in the county seat would you go to get tips on farm news, conditions, or changes for such pictures?

7. If you wished to secure for such a county farm tabloid photographs reporting government methods used on soil conservation or on farm conditions, without going to the expense of sending a photographer out especially to take them, where might you try to get them?

8. If you wished to print pictures of the new farm housing organization in Germany or of central farming conditions in the Soviet Union, where would you seek them?

9. The Missouri weekly described in Exercise 5 decided to publish a picture of its first issue in 1819 and a picture of its issue reporting Lincoln's assassination. However, the paper had no office files extending that far back. To what customary source did it probably go to get these pictures to reproduce?

B. CHAPTER-ORGANIZING QUESTIONS

Be prepared to discuss the following questions orally:

1. In what three ways do small papers, unable to afford full-time staff photographers, get local pictures? Where do they get pictures of national and international news?

2. What objection is there to the small daily's common practice of assigning the pressroom foreman to make up the weekly picture page from a heap of syndicate mats?

3. What is an objection to having a city editor handle all pictures for a paper?

4. On large papers, where is the picture or art desk located, and what is its function?

5. What inefficient condition developed early on papers handling many pictures which led to the creation of the position of picture editor?

6. To what news executive does the picture editor (not the studio head) correspond?

7. List at least eight duties of the picture editor.

8. On somewhat smaller papers, what three combinations may be made with the position of picture editor to save money?

9. On papers which are too small to afford any full-time staff photographers but which receive pictures from press associations and syndicates, what office organization is advisable to utilize most effectively the space occupied by pictures?

10. To illustrate movie and aviation pages more fully than pictures supplied from local theater managers will permit, what picture sources can be tapped?

11. A few years ago when pictures were largely used to illustrate and ornament, a disaster at a distant mine would normally have been illustrated by pictures of the mine shaft taken weeks or months before and a cabinet photograph of the man in charge of the rescue work. How did science improve upon this illustrative method in the case of a recent disaster?

12. Explain the function of the photoelectric cell in wirephoto transmission.

13. Explain how the varying tone values in a photograph are transmitted to distant points to make a wirephoto.

14. What development available since August, 1937, has added greatly to news-picture enterprise?

Chapter III

JUDGING NEWSPHOTOS

PREVIEW QUERIES

Approximately 12,800 photographs each week reach the desks of *Life* magazine. Of these, between 250 and 300 finally get into print. Of 3,000 negatives made for a series, or "picture story," 30 were published. Many newspapers cannot afford quite so high a proportion of "chaff," but every picture editor's eye must be quickly and keenly selective. What principles, consciously or unconsciously, govern acceptance or rejection?

By what editorial formula would a clear, reproducible print of a $20,000 painting owned by a local millionaire be rejected by an editor who the same day rated a picture of five unidentified Negroes photographed several hundred miles away as one of the most widely interesting news shots of the year?

How may the picture of a statue or the façade of a new building be given the reader appeal of "motion" by the position of the camera?

What have the pupils of an object's eye, or the appearance of curtains at a window, to do with judging certain news photographs?

When is a picture of Red Cross nurses near the front lines in France not a news picture at all? When is the same picture for the same newspaper in the same year a decidedly good news picture?

Suppose a local theater burns. Some persons are killed, others narrowly escape. After all available pictures of this fire and its aftermath have been printed, how may a picture editor satisfy a public appetite for pictures linked with the fire?

THE product of news cameras must be carefully selected and edited, if photography is to do its job of reporting events. So the newspaper picture editor scans the stream of "art" as critically as the telegraph editor does the copy coming over the wire or the city editor the stories handed him by reporters. And he may have little time to make his selections. With editions coming up and picture deadlines to meet, with big stories to be covered and photographs arriving constantly, he must be prepared to make his choices at top speed, yet always make them correctly. For this he develops certain standards of judgment,

which at first he observes consciously but which soon become part of the automatic functioning of his mind. When that point has been reached, he may be said to have acquired a "picture sense."

On the road to this picture sense, two classes of values must be kept in mind. We judge a picture first for its essential value, or *content.* Secondly, we judge its value as *copy,* how well it will reproduce on newsprint. *Content* and *copy:* story value and reproduction value. These are the mainstays on which must rest all intelligent selection of news pictures.

The beginner will find useful a simple method of grading each photograph in order to discover whether it belongs in the news pages of the paper. The picture is first rated for *content* on a 100 per cent basis, of which 33⅓ per cent is given for the importance of the personality involved; 33⅓ per cent for the news it reports; and 33⅓ per cent for the amount of action portrayed. No photograph is acceptable in the news columns unless it attains a rating of 60 per cent (Fig. 3).

Let us see how this works out. Suppose we have a photograph of the President of the United States, seated at his desk in the White House, putting his signature on an important piece of legislation which may affect the future of the country. His pen is poised over the paper, while a group of prominent advisers watch. The President is a highly interesting news figure, and therefore on this count—the importance of the person—we can put down the full 33⅓ per cent. As news the shot also rates 33⅓. But on action it takes a drop. It is not a still life—there is considerable animation in the scene—but neither is it as full of motion as the picture of a prize fighter delivering the knockout blow. On the count of action, a generous estimate might give it 20 instead of 33⅓. On the three counts then, this picture totals 86⅔ per cent, or far above the 60 it needed to be used.

Let us imagine the photo following this one is of an entirely different sort. It shows the deck of a sinking liner at sea. Members of the crew and passengers are rushing to adjust life preservers before plunging into the ocean. Such was the subject of one of the greatest news pictures ever made: a camera shot snapped during the sinking of the "S.S. Vestris."

Remarkable as the picture is, it rates zero on the first count: importance of the persons shown. But it gets 33⅓ for news and

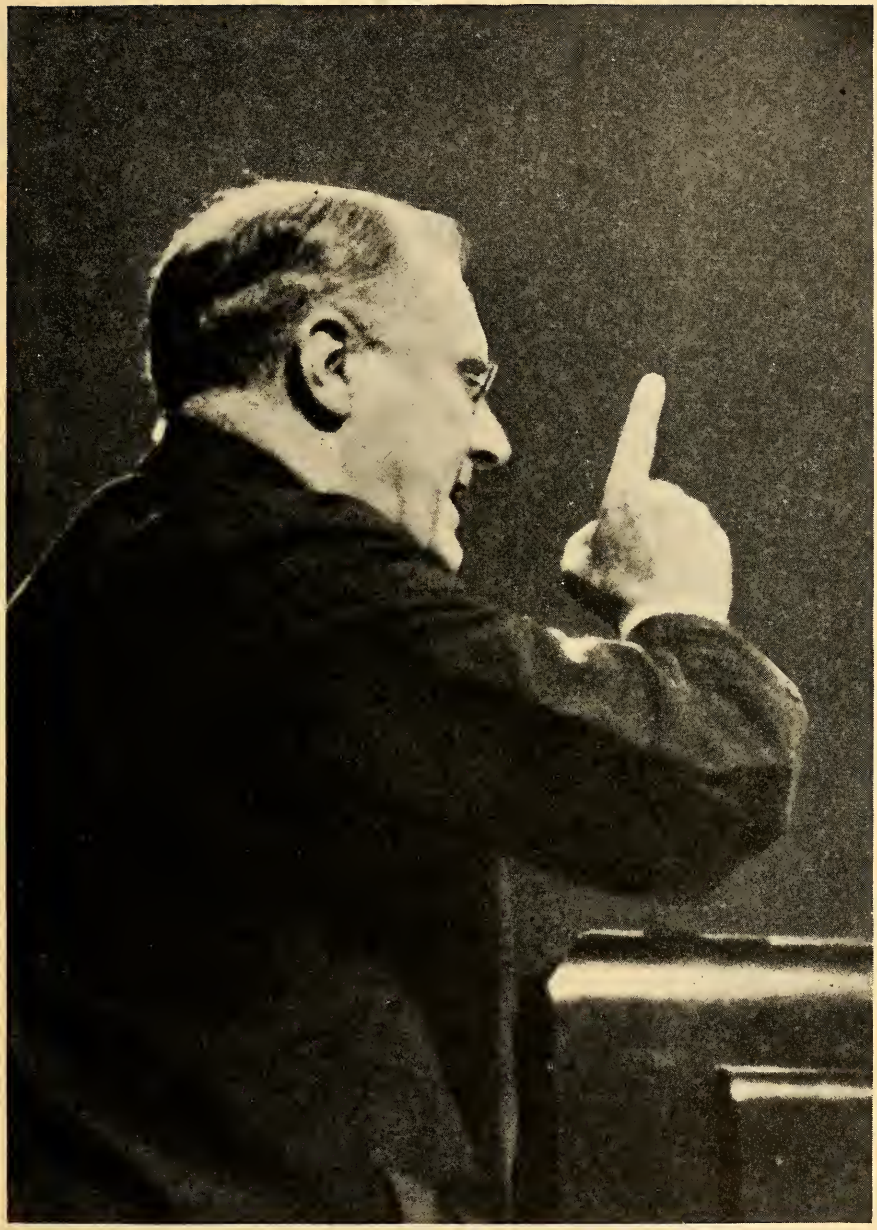

Photo by Harry Goodwin.

FIG. 3.—Action—personality—news value. This candid shot of President Roosevelt delivering an important message to Congress has all three essentials.

33⅓ for action, or drama. It is easily a picture for the front page.

The amazing frontispiece shot of the explosion of the German dirigible Hindenburg at Lakehurst, rates 66⅔ for *content*, since no important persons are shown. The beginner making use of this method should therefore realize that a rating of 66⅔ may indicate a picture of major news value. On the other hand no picture which cannot reach the 60 mark will be worth publication.

A photograph of a prominent citizen playing leap frog on the sands of a summer resort may rate very low—say, 5 per cent on news value, the news that he is on vacation. Yet his importance in the community where the paper is published and the liveliness of the pose may give it the total it needs to make the paper.

A bust or cabinet photograph of a bank president mysteriously kidnaped or murdered shows an action rating of zero, but 33⅓ on personality and 33⅓ on news.

The novice will find that daily practice in rating pictures for their *content*, on the three counts of personality, news, and action, will soon give him great facility in judging newsphotos and will help him to avoid many common blunders in picture selection.

Take for instance the case of the constant reader who sends the editor a snapshot of his pet spaniel, with a request that it be published. If the dog is a thoroughbred and the newspaper runs a pet column, the shot may find its place there. But for the news columns it is definitely out, as a quick rating will show. It gets zero for news, zero for action, zero for personality.

If the dog just won a blue ribbon in a local show and is photographed wearing its mark of distinction as it jumps up to greet its prominent master, the rating changes so much that it is now excellent pictorial material. Thus each separate shot must be rated by itself.

Examples could be multiplied, but the rule should be clear. Judged for *content*, a photo may lack one of the three essential values: *personality*, *news*, and *action*. If it lacks two it is ruled out of the news columns. At this point, however, the student should stop to consider whether he understands thoroughly what each of these three values implies.

On the first count, *personality*, he will probably have little difficulty in distinguishing the people who are important in his own community and in the world at large (Fig. 4). In order not

to overlook important pictures, he will keep his own background of current events constantly up to date, will follow carefully all the stories that are running in his own and other newspapers, and will have a watchful eye always on big news that is breaking.

Photo by John Mills, Jr.

FIG. 4.—People may be important locally, nationally, or internationally. The bigger the celebrities, the better the public likes to catch them off guard.

The better informed he is in many fields, the less likely he will be to make the mistake of not recognizing an important face or name.

RECOGNIZING NEWS VALUES

The *news* rating, too, requires careful consideration, because any misconception of what news is will lead to possible error.

The big *spot news* photo is hard to miss. It is the shot of the local theater burning down, the prominent society woman killed in an automobile crash, the flood or disaster taking hundreds of lives, the Presidential inauguration, the labor riot, or the national convention of financiers or war veterans.

As with news stories so with pictures, the farther from the local scene the event occurs, the bigger it must be to possess interest for the local reader. A small incident occurring on the city's

principal boulevard may be worth Page One, but if it happened in some other city, it may not be worth considering.

All news, near or far, concerns four great elemental human themes: *Survival, sex, ambition,* and *escape.* These are the four great *motives* or instincts,which form the pattern of man's existence on this earth. His interest is at once aroused by anything which invokes them.

Of the four, survival is perhaps the most elemental. The struggle to keep alive and to go on living has been in progress since the first savage wrapped himself in animal pelts, warmed himself before a fire, or nourished himself on the flesh of the creature he had slain. Newsphotos that invoke the survival instinct are sure of appeal. That is why people look at pictures of an airplane crash, a fire, a flood, or a catastrophe of any kind. It is why they are interested in pictures having to do with some crime which endangered life. It is why they are concerned with pictures of famine-ridden people, of foreign wars, of strikes for better living conditions. The survival instinct may be aroused by a picture having to do with sudden death or by one which tells a dramatic story of everyday struggle for food and shelter. It may make a great news picture out of a poor Negro's lynching, or a tenement mother and her children receiving a basket of Christmas food, or a gang of humble laborers toiling to heap sandbags into a wall to hold back the turbulent river threatening to engulf a town.

Survival—or anything which threatens it—is *news.*

Next to survival, sex is probably the second great human interest. Translated into news pictures, it implies intense public interest in romances, in engagements, in weddings, and in divorces. It brings many widely different pictures within the category of news, from the kiss of two prominent movie stars to photographs of the principals in a crime of jealousy. Pictures of babies probably have their tremendous emotional pull because they tend to combine appeal to the romantic or sex instinct and to the survival instinct, which becomes a protective sense where it affects those who are helpless.

Sex—romance, love, and hate—is *news.*

Third of these great pillars of the news is the ambition theme—the appeal to man's urge to surpass his fellows, to gain power, to be an important person in wealth or in influence over the lives of

others. Ambition takes in the whole arena of the business world, of politics, of scientific, social, and many other forms of achievement. The appeal to this instinct to reach the top of the human pile accounts for the fact that the humblest factory worker may study over news shots of a great society event or that citizens of a great democracy may clamor avidly for photos depicting life in a royal castle. Pictures of the Duke of Windsor and his bride, the former Wallis Warfield, an American-born commoner, had a twofold appeal to the romantic instinct and to the instinct of ambition.

Ambition—getting to the top—is *news.*

Fourth of the forms of news appeal in pictures is *escape.* Never quite content with the spot on earth where he must live, man longs insatiably for change, for adventure, for fun and glamour and everything which will give him momentary respite from the struggle for existence. He may never take off in his own airplane, sail his own yacht in a cup race, knock out the world's heavyweight champion, sing in grand opera while thousands listen, or conquer the heights in Hollywood. But he will experience keen delight in sharing the experiences and following the latest exploits of those who have done these things. Pictures of a horse race, an expedition to the North Pole, a flight across the Atlantic, provide happy escape thrills. Newsphotos with the escape interest may be sports shots, or movie shots, or adventure and exploration, or photographs having to do with the fine arts, radio, or the screen. The variety is almost endless, but the test is sure.

Escape—adventure, prowess, and daring—is *news.*

Recognizing Action

So far we have considered the first two of the three essentials to be looked for in the content of any news photograph, personality and news. What of the third of these essentials: *action?* The person attempting to judge pictures must be sure that he knows just what this requirement implies.

Usually we think of action as something having to do with actual physical or bodily motion: a child running, a prize fighter battling his opponent, a baseball pitcher throwing the ball, a fireman dragging victims out of the flames, a horseman leaping a hurdle. Or it may be an airplane doing a nose dive or an ocean liner sliding down the runway or plowing through the waves.

Such scenes spell action to everybody's mind. *Motion* is *action* (Fig. 5).

Not so long ago newspaper people dealing with photographs discovered another sort of action which was thrilling: *action in the human face.* The fast lens of the so-called candid camera had made this more subtle form of action available. The drama of facial expression should never be overlooked as a high form of appeal in newsphotos (Fig. 6).

Thus, the senator caught in a close-up, shouting and gesticulating as he urges the passage of a bill, is far more interesting to the public than the same man would be in an impassive studio portrait. The face of a child with terror stamped upon it may give the newspaper reader a better conception of a school fire than columns of wordy eloquence. All emotions have a dynamic quality, and the newsphoto which depicts emotion has the quality of action, even if the person photographed is sitting still. *Emotion* is *action.*

In this connection it is well to point out the editorial power the picture editor exercises in his selection of a candid camera shot. A grotesque facial expression, caught by the camera's eye, may cause ridicule; whereas a more ingratiating close-up would have won instant friendliness. Many photographs of political figures are deliberately chosen for their sympathetic appeal or for their cartoon value (Fig. 6).

Two places where better use could be made of candid camera material are the society and Sunday pages. Stiffly posed cabinet portraits still conspire to make the woman's pages dull. This is because such portraits are sent in by subscribers or furnished by local studios, and the editor follows the line of least resistance in utilizing them. Their low reader appeal makes them little more than space fillers. Reader reaction is always keen when such pages show candid camera shots which reveal the glamour and laughter and elegance and drama of the smart set or the local residents in action. And many a local photographer, in return for a published credit line, is glad to take pictures of social events and parties and furnish them to the paper free or at nominal cost. The newspaper's own photographers and reporters may sometimes be available for taking such shots, or these may even be secured from the readers themselves if a little educational work regarding society pictures is first carried on.

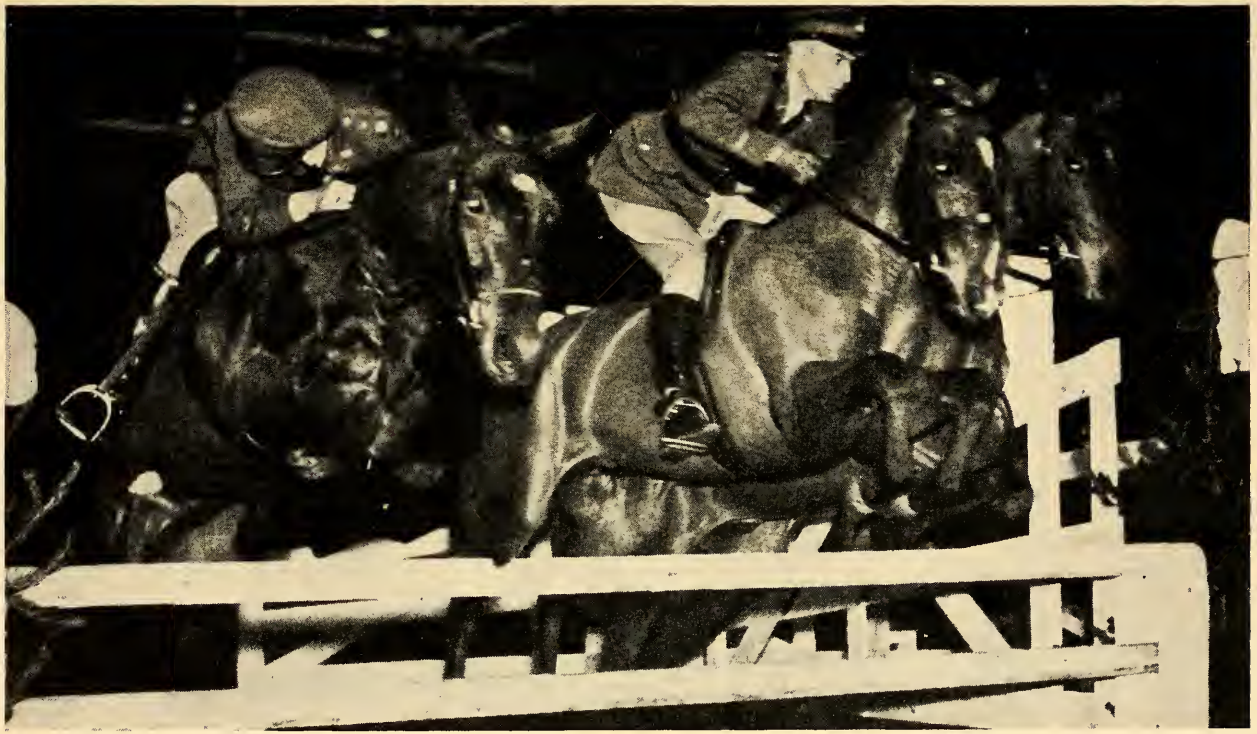

Photo by John Mills, Jr.

FIG. 5.—Moderns love motion. And sports provide the news photographer with material for some of his most dramatic action shots.

The ideal toward which all sections of the newspaper should strive is that of *more interest through more action.* The success of the so-called movie strip is significant. Many newspapers today run not a single picture of an event, but five or six pictures of the same action, in strip form, taken with a motion-picture camera. Such a strip may show the successive positions of a horse leaping

Photo by John Mills, Jr.

FIG. 6.—Action in the human face is as thrilling as any other kind of motion. That is why the candid shot is so much more appealing than the studio portrait.

a hurdle in a horse show, a scene in a prize fight, an argument between two legislators. The fact that newspaper readers enjoy sitting down and studying over such a progression of action will illustrate how vital this factor of action really is to the modern mind. If editors fully realized this, they would learn the possible means of ridding their paper of deadly dull, actionless photography.

So urgent is this modern desire for action that many a skillful photographer has tried to introduce it into his reproduction of a still life. Sent to photograph a new statute in the public square, or the façade of a new building, he has not been satisfied with a

direct shot but has so placed his camera and utilized light and shadow that the subject was dramatized. Usually such dramatization resulted from a mild distortion of form, accentuated by unusual lighting effect. How this may produce the sense of action is not hard to analyze. The mind detects a fluidity in this figure in distortion, which suggests that it might melt into other shapes and attitudes. Its rigidity and permanence are removed. An object is in equilibrium to the human eye when it seems to be satisfying the laws of gravity by a safe and secure balance. Upset this solid balance by showing it at an angle, and you give it motion as certainly as if you took a citizen off the sidewalk and balanced him perilously on a tightrope.

The cameraman calls such a picture an angle shot (Fig. 7). It may be very useful in providing a semblance of action where this is totally lacking, but *angle* is only *pseudo-action.* The picture editor should be very careful not to be overseduced by such pictures. A skyscraper viewed from the sidewalk may be amusing; a lighthouse snapped from above as an airplane flew over it may have a most unusual form. It only belongs in the paper if in addition to its manufactured action it has definite *news* value.

To sum up, a picture is judged for its *content* on three factors, *personality, news, action.* Experience in handling newsphotos will teach the beginner to recognize these factors automatically. In the meantime, he can speed the dawning of his own picture sense by carefully rating each shot for these separate elements.

Judging News Feature Pictures

News feature photographs (Figs. 12, 13, and 16), whether for the inside pages of the daily, for the Sunday feature pages, the rotogravure, or in fact for the currently popular news picture magazines, are more easily selected if the picture editor bears in mind that they are just what the words imply: photographs which represent *features of the news.*

News in this respect may mean the last-minute news stories showing on the front page of the paper; or recent news stories which have attracted widespread attention and continue to hold interest for the reader; or long-range news trends that affect a great many people; or finally just the current life of the people as revealed by the camera's eye. In one way or another the feature

Photo by John Mills, Jr.

FIG. 7.—Angle photography adds action to still life.

picture or group of feature pictures shows an aspect of the news of today, of the modern world. The picture which does not meet this simple requirement is not a feature picture at all, and in point of fact it has little or no pulling power.

Straight News Features. Let us consider a few examples. Say that the Red Cross is making its annual membership drive and the newspapers are carrying the story in their regular news columns. Feature pages or rotogravure might use layouts of pictures showing past and present activities of the Red Cross—in the World War, in floods and famines, and in regular everyday nursing services to the poor and sick in our city slums. The oldest and the most recent of these photos is a good *feature* of the news story of the Red Cross drive. Whereas, if no Red Cross news story was in the papers, pictures of Red Cross nurses behind the lines in France would not be feature pictures at all but just photos which had no link with the present day.

Features of Recent News. News when it breaks is often so exciting that it can be followed up with feature pictures and series of feature pictures a week or more later. A theater burns and the spectators barely escape with their lives. The community is aroused over the event, and when all pictures of the fire itself have been used, together with the aftermath of the fire, the injured in their homes and hospitals, there still remains *an appetite for pictures linked with the fire.* That is the time to dig up out of the newspaper picture morgue and from local photographers pictures of all the important fires that have ever occurred in the city. If dramatic enough they will make a fine pictorial feature. If not, then the picture editor will look for some other feature idea. Pictures of great theater fires in all parts of the world in recent or ancient times are relevant to the subject. He may have to photograph artist's drawings in history books at the public library. In any case, he will not let the subject wane so long as he feels there is still an interest in such pictures.

A serious automobile accident may similarly give rise to pictorial features both of accidents and of ways to avoid accidents: A cameraman may be sent out to get photos of traffic violators on the streets of the town, or a group of pictures showing how traffic and driving schools are run by police in a distant city or in a foreign land may prove a good feature of the recent local news.

A local flower show may be reported in pictures on the day it occurs. On the following Sunday the rotogravure may broaden the pictorial coverage to include comparisons with photos of flower shows in other cities. Today's pictures of the apple-blossom festival point naturally to a Sunday picture layout of the festival in previous years.

Thus straight news often suggests a feature follow-up.

Long-range News Features. It has been more than twenty years since the story of a communist Russia first hit the front pages, yet popular interest in the Russian experiment has by no means subsided. Photographs which show any phase of life in Russia, in home, factory, or farm, still have a definite link to long-range news and to popular emotions. They find an interested audience even without any immediate news tie-up. The World War and subsequent international events, the rise of fascism, the wars in Ethiopia and Spain and China, have made us conscious of historical trends to which we ourselves belong. We see ourselves in closer relationship to other portions of our planet than we ever did before and we are therefore instinctively interested in pictures of German children bearing arms, of Italian women kissing Mussolini's hand. Twenty-five years ago pictures of Germans and Italians at home would have been rather tame travel photos; today they affect us, because they are live features of long-range news.

Depression worries made us economics-conscious and New Deal remedies have kept the subject in the news. Today we are interested in feature pictures which show how people are living at the bottom of the economic scale, in city slums, in mountain shacks, in farm districts where modern comforts are unknown, in the huts of the Southern sharecroppers and in the sordid surroundings of coal-mining towns. We likewise have an enormous curiosity about life at the top of the economic scale: we like to see the pictures of the country's "most eligible bachelors" worth $50,000,000 or more, of the wealthiest girls in the world, of the movie stars earning the biggest salaries, of the parties on J. P. Morgan's yacht (if they are obtainable). We are also interested in economic remedies and changes: new model housing, migrations of farm population, etc. These feature pictures do not show things with which we are directly familiar, yet they have a vital

appeal to almost everyone, because of their link to long-range news.

The picture editor who understands this will not lack for news feature ideas. Hundreds of long-range news subjects exist, and every one of them will prove a fertile field for news feature photo ideas.

Current Life of the People. If long-range newsphotos fail, there is a reservoir of feature picture ideas close at hand, in the everyday doings of everyday people. We are interested in our neighbors, whether in kindly fashion or maliciously. We like to see pictures of our children in their classrooms at school, of local matrons tending their gardens, of the animals in the local zoo, of the town's healthiest babies, of choir boys in local churches and sweet girl graduates, of well-known businessmen at their Sunday golf game and housewives baking prize competition layer cakes for the state fair. Rushing crowds at the business hour, Christmas shoppers caught in a whirl of snow, traffic policemen in new uniforms—these and ten thousand other feature subjects are at the picture editor's elbow, and they have instant appeal.

Humorous Feature Pictures. Nor should he overlook the feature ideas with a humorous slant. There will be many occasions for photographing or selecting photographs of "oddities" in the news. A student mud battle, a dignified banker giving a demonstration of the hula-hula in a bathing suit, an intelligent jackass who won a prize over 10,000 mules. One can never predict where humor may be found, but it is usually a fine feature.

Rating Feature Shots. Good feature pictures, then, have a news connection, whether remote or immediate. Like straight news shots, they can be judged for personality, news in its broadest sense, and action.

Possibly more discrimination should be expected in the selection of feature pictures than of straight news shots. News is insistent, it demands to be known even when horror, tragedy, or sordidness is its accompaniment. If the news is big enough, even good taste will have a hard time suppressing the pictures. Newspapers and the newsreels have shown us the battered and mangled bodies of slaughtered Chinese, strewn revoltingly over the streets of Shanghai and other war-torn cities of the Far East. They have shown us survivors of air disasters, clothes burned from their

bodies, running from the flames. The modern mood seems to dictate that there is no escaping from the news, that it is better to face the facts as photography reveals them.

When it comes to features, a greater degree of the element of taste may enter into the selection. It is hard to say that it does, but the further afield we get from day-to-day actualities, the less probable it seems that the public will be ready to enjoy pictures which are crude, vulgar, or otherwise offensive to the eye.

Judging Newsphotos for Copy

If the newspaper reader were going to see original photographs, instead of their reproductions on newsprint, the task of judging and selecting would be easier. However, before any news shots can reach the reader, they must be subjected to engraving and printing processes which may enhance or destroy the story they have to tell. The final result will depend largely on the picture editor's skill in selecting the more suitable copy for news engraving purposes. He must therefore be able to judge the photo for *copy as well as content.*

The engraver will of course do all in his power to modify and adjust his methods to the sort of pictures handed him. He may be so successful that the final result is more attractive than the original, yet he cannot produce good halftones unless he gets copy that is reasonably appropriate to the halftone process.

Newspaper subscribers frequently bring in portraits on dull-finish rough-grain paper, which are very handsome in effect. For private use, a rough fiber or embossed surface may add beauty, but it will prove a stumbling block to newspaper reproduction. Magazines using a higher grade paper may find the dull-finish print makes excellent copy for halftones and with a finer screen will get effects of "texture" from originals with fibrous or embossed finish. With the coarse screen used for newspaper work they are quite unsuitable.

The best photographs from the newspaper engraver's standpoint are those which were taken with a good lens, properly exposed and lighted, and printed on white glossy paper. These are the glossy prints so familiar to all who handle newspaper pictures. They depend for their effects not on artistic surface qualities of the paper on which they are made but on their own tone values, which should range from pure black through shades

of gray. Discolored prints, prints of sepia, and those showing traces of yellow, green, or brown tones, though occasionally they may have to be used, are not good copy for halftone engraving. Glossy prints dried on a tin to give them a higher luster may produce better results than the ordinary glossy. But no amount of gloss will make up for what is essentially poor copy.

Photo by John Mills, Jr.

FIG. 8.—Good copy shows sharp focus, detail, and contrast. Note that even the texture of the material of his suit is preserved in this halftone of a witness before the U.S. Senate Munitions Investigation.

The beginner should practice rating pictures on a new three-point system for their copy values (Fig. 8). Good copy is that which has (1) sharp focus; (2) good detail; (3) contrast in tones.

Sharp focus means clarity of outlines. If the side of the subject's face fades off into the background, if the speed of the exposure was not sufficient to prevent movement of the people in the crowd from resulting in a blur, the photograph had better be discarded.

Equal in importance to clean-cut outline is adequate *detail.* If this picture of a country house has the detail it should have, it will probably show not only the windows, but the lace curtains in the windows, the separate bits of tile that form the roof, the outlines of the bricks, the leaves and branches of the trees that give it

Fig. 9.—Poor copy shows insufficient detail. Note the blurred features of Supreme Court Justice Black, making his first radio address after his appointment. The photo was used despite its defects because of its importance as news.

shade. And this photograph of a prominent citizen should show not only the nose and mouth and eyes, but the pupils of the eyes. If the eyes are merely a blur of dark tone, the likeness in the paper will be unsatisfactory (Fig. 9).

The reason detail is so important in the newspaper print is that so much of it is going to be lost in engraving. We shall see later how the engraver, in making the halftone cut, rephotographs the picture through a screen which breaks its solid surface up into

tiny dots. A variety of halftone screens are in use, ranging from those which are ruled with 50 lines to an inch, to those which have as many as 175. The finer the screen used, the more dots result, and therefore the more of the picture's detail is preserved. Unfortunately, very fine screens, though excellent for magazine purposes and for reproduction of photographs on a variety of high-grade coated papers, are not possible where high-speed presses and newsprint are to be used. Newspapers having a rather inferior paper may be obliged to employ a screen showing 50 lines to an inch; better newsprint permits a 65-line screen, and the highest grade newsprint may sometimes allow an 85-line screen. The 65-line screen is in most common use for newspapers; whereas many magazines use 120 or 133 and fine books 150 or 175 line screen on the highest grade coated stock.

The lace curtains in the windows of the country house, though they show clearly in the glossy print, will have disappeared from the halftone with a 50 or 65 line screen. This is important to know. Unless the glossy can afford to lose much detail and still be interesting, it should go into the discard. The more detail it shows to begin with, the more it will retain after the screen has got in its work.

A newpaper picture editor may have to apply this judgment of detail, not to an original newsphoto, but to a halftone copy of one. It is frequently necessary, in finding pictures for the news or feature pages of the paper, to make use of something already in print, such as an illustration in a book, of which no original photograph can be had. The problem of whether such a picture can be reproduced is often very vexing, yet the solution is fairly simple. If the screen originally used on the picture was a coarse one, it probably lost so much detail that to rephotograph it through a screen for a new engraving would be apt to destroy it altogether. On the other hand, if the first screen used was extremely fine, if the book illustration still shows a high degree of clarity of detail, then one may hope to get just as good a newspaper cut from it as from the average news photograph. Such halftone copy should be judged by exactly the same rules as apply to a glossy print and must measure up to approximately the same standards of detail, contrast, and sharpness of outlines. In rescreening such a halftone the engravers will take care to place the screen at an oblique angle, avoiding a coincidence of dots.

So far we have discussed the first two requisites of good photographic copy for the newspaper: sharp focus and detail. The third copy requisite is *contrast.* In many ways this subject of contrast is one of the most interesting the photographer or the picture editor will have to explore. Better understanding of it will lead to better techniques in taking pictures and to better selections in newsphotos.

We have already seen that a proper range of tones, from pure black through grays to white or near-white is demanded by the engraver who must turn the newsphoto into a metal cut. There is a reason for this. When the glossy print is copied through a halftone screen in the engraver's camera, its surface will be broken up into dots, in a manner which will be more fully described later.

Suffice it at this point to explain that the action of the light reflected back through the lens from the light and dark portions of the picture results in a pattern of dots which are equally spaced but which vary in size according to the tone values. It is this difference in the sizes of the halftone dots which will make the printed picture something more than a mass of ink. However, if the original print has insufficient contrast, so that it approaches a monotone of gray, it will balk the very process by which it is converted into a halftone cut, and the resulting picture in the newspaper will have very low visibility.

From the engraving standpoint, then, contrast is essential. There are also several other reasons for seeking it, as we shall see. First, let us remark that the contrast in any photograph is an effect of the lighting. A kodak snapshot taken in brilliant sunlight may have contrast so sharp that it comes near to distorting resemblances, casting black shadows from hats over the faces of the people who posed. On the other hand a photograph taken in the rain, or an indoor shot without sufficient lighting, may give an allover gray with almost no contrast at all.

As between the too contrasty and the too gray picture, the average person will prefer the former. He has a taste that is conditioned to lighting effects, and if these are properly regulated they will produce in him a strong effect. He feels vaguely that the subject has been dramatized by light. What light has really done for him is to give his picture *three dimensions.*

Man's relation to the outside world is not that of a fly crawling on a flat window pane. The world he lives in has *depth* as well as

length and breadth. In order to *see* this depth he has stereoscopic vision. If a man had but one eye in the middle of his forehead, he would look out on a flat-appearing universe. But the images obtained by his two eyes are synchronized into a *mental picture which has the third dimension.* Since our mental pictures have a third dimension, it is natural we should like to have this quality in the pictures the camera takes for us.

Long before the camera existed, this subject of dimension was one of grave importance to painters. The earliest painters, including the Orientals, presented their subject in two-dimensional representation. Gradually, however, lighting effects crept into the picture, to give the illusion of depth. With a skillful use of colors, the painter imitated the sunlight and shadows which, by producing tone contrasts, helped the eye to visualize depth, or form. Just as the figures in a bas-relief are "modeled" for the eye's image by the light falling on them, so the painter raises his figures out of the canvas by the contrasts of light and darkness he paints into them. The painter can do this better than the camera can, because he has the whole color scale to draw upon for contrasts, whereas the camera has but a sensitivity to degrees of light, resulting in a short range of grays, shading into black. We are not referring here, of course, to color photography, which opens up a new set of possibilities in this field.

In this restricted medium, the photographer, whether working by daylight or in the studio under artificial illumination, seeks to give his picture a reasonable three-dimensional quality. If he pushes this effort too far he may get the crude black shadows and distortions of the amateur snapshot. His skill in lighting the picture properly will determine whether or not he succeeds in producing a photo which has clarity, detail, and as much depth or dimension as is possible without sacrificing other factors.

The picture editor will have an eye trained to appreciate these qualities. In addition to watching his newsphotos for sharp focus and detail, he will learn to know what is the *right* amount of modeling in a picture and will not be ensnared on the one hand by trick and exaggerated lighting effects, nor on the other by "rainy-day" photographs which have neither high lights nor shadows.

His standard for judging contrast is simple. The purpose of a photograph is to show the subject to best advantage, whether it be

a person, a group of persons, or a still life. Lighting effects may be heightened for purposes of dramatizing this subject, but if the procedure is carried too far, the attention will be drawn away from the subject to the trick lighting itself, defeating the purpose for which the picture was made.

On the other hand, if the lighting was insufficient or so badly managed that the photographic print shows an allover gray, the subject will not stand out in three dimensions. Since two-dimensional pictures fail in emotional appeal, such a photo will not be apt to get its story across to the newspaper reader. The term usually applied to such photos is that they are "too flat." That expression is precise: they lack the third dimension.

To sum up, the newsphoto is rated as good copy if it has the qualities which will best reproduce in halftone, in the coarser screens used by newspapers. It should have clear-cut images and plenty of detail to resist the loss it will suffer as a result of screening and should show a good range of tones and contrast, both because these are necessary to the halftone process and because they better reveal the subject.

A. ADAPTATION EXERCISES

1. Select a picture page (devoted exclusively to pictures) from a daily paper published within the last month in a city of not more than 25,000 population. Judge each picture for its news value, give it a grade in accordance with the scoring method explained in this chapter, and mark the score in ink on each picture. Be prepared to defend your scoring in class.

2. Select a picture page from a metropolitan paper published in a city with a population of at least 300,000. Score each picture as for Exercise 1.

3. Total the scores on the page having the smaller number of pictures. Mark this score at the top of the page. Now total the same number of pictures from the other page, selecting the highest scores. Mark this score at the top. Using very specific points of reader appeal, write an explanation, between 300 and 350 words in length, of why you consider one page as a whole to possess more intense and wider reader interest than any other page.

4. Using very specific points, write an explanation, between 200 and 250 words in length, of why you consider the highest scored picture on one page to be a better news picture than the highest scored picture on another page.

5. Clip all the front-page pictures from a metropolitan newspaper and mount them on a sufficiently large sheet of paper to permit scoring. Score each picture for each of the three elements of news value: (*a*) personality, (*b*) news content, (*c*) action. Be prepared to justify your scoring.

6. Suppose a wealthy resident of the town in which you live sends to the town's daily newspaper, unsolicited, a good reproducible photograph of an oil painting which hangs in his home. Assume that you are picture editor of that paper. The painting is an original by Gay depicting a derelict at sea. It was painted about sixty years ago and was brought to your town two years ago by the present owner, who refused at the time to allow a print to be made of it. It cost $5000. Many people have seen it and your paper printed the story about it two years ago. Score this picture on the usual three counts and explain what you would do with it.

7. Assume you are a news photographer assigned to photograph a killer being locked in the city jail. He was a former local jailer, who, disgruntled, killed the chief of police two months ago and is now being returned for trial after capture in Los Angeles. Would you photograph this man from the back as he passed through the cell door? If you could to a reasonable extent pose the picture, explain how you would do it and what specific effect you would try to get. Would you try to talk the former and present jailer into staging a mock scuffle at the door for action?

8. Suppose two motorcars crash on Sunday afternoon in the crowded principal part of a city 500 miles from the town in which your paper is published. No one is killed, but the chairman of the park board in one car suffers a broken leg; the other car is owned by the mayor, who escapes injury. A free-lance photographer sends your paper a good print of the damaged cars after the crowd has left but with half a dozen persons looking on and, two men trying to lift the cars apart. Rate this picture for your paper.

9. A motorcar owned by an obscure clerk crashes into a center-of-the-street stop light where your town's principal boulevard intersects the principal business street half a block from the post office. No one is injured, though the light on the stop sign is broken and the car telescopes. A free-lance photographer gets you a good print of the wreck against the stop sign with one person looking on. Rate this picture for your paper.

10. Number each story on the front page of a recent issue of one of the local newspapers in your state. On copy paper, using corresponding numbers, explain briefly why each story is news with respect to each of as many of the elemental themes as you believe are involved—survival, sex, ambition, escape.

11. From the same copy of the same paper, select what you consider the most widely interesting *local* news story which does not have a picture to help report it but which you believe could have been reported by a news photographer had one been assigned as soon as it was reasonable to expect a tip of the story to have been reported to the city room. Assume that you were the photographer. Describe the picture you would have tried to get.

12. Rate the picture which you described for Exercise 11.

13. A press association picture of river flood scenes, after the first spot news shots had been published, showed four Negro prisoners in a chain gang carrying sacks of sand on their shoulders to reinforce the levee. They are dressed in worn prison denim; chains show at their feet. Faces of three are hidden by the sacks, but one has his face toward the camera, a carefree

laugh, flashing white teeth. Assume that you as picture editor received this print for a paper some 200 miles from any flood area, but while flood news is still appearing in your paper. Rate the picture for personality, news, and action, explaining your reasons for each score.

B. CHAPTER-ORGANIZING QUESTIONS

1. What would be the probable effect on readers if news pictures were published just because they were pictures, without careful regard for their news value but in order to "get as many cuts in the paper as possible"? (Something of this sort occurred in the early months of 1935, when wire pictures were new and some editors used a large amount of space for pictures whose one qualification was that the underline could note "transmission by wire." For a limited time, of course, interest did lie in the mere fact of scientific innovation.)

2. For what besides personality, news, and action must an editor judge news prints?

3. What does the engraver's screen do to the continuous tones, or solid surface of the print?

4. What is meant by a 50-line screen?

5. Explain why some magazines can use 133-line screen halftones when newspapers can seldom use a screen of more than 65 lines.

6. What effect does the screen in photoengraving have on the degree of detail in a photograph?

7. Why is a glossy print or "squeegee" preferable for newspaper purposes to the more artistic, softer surface qualities of pictures which are to be used for mounting?

8. What three-point system should be followed in judging news pictures for *copy* value?

9. What is lacking, from the picture editor's standpoint, if the side of a person's face in a news picture fades off into the background? If this fading is markedly present, or if insufficient speed of exposure has allowed slight movement in the picture to show, what should be done with the picture?

10. Explain what simple criterion may be used for judging whether *detail* is adequate in a picture which shows an occupied brick house, a man or woman in street dress, a picture in which a tree affords shade, or the close-up front view of a face.

11. If an original photograph is not available, but a halftone reproduction on glazed paper is available, can a satisfactory reproduction be made? If so, what points in the halftone should be examined?

12. What part do halftone dots play in the final printing process of the newspaper?

13. What quality in a newsphoto print determines the clarity or visibility of the picture as it finally appears in the newspaper?

14. In Shakespeare's only allusion to perspective in painting he calls it "best painter's art." What is the principal way in which painters obtain the effect of perspective on canvas? What concern must the news photographer have to give the objects in his pictures a lifelike illusion of depth?

15. What characteristic of our eyesight makes us prefer pictures that are dramatized by light?

16. What *objectionable* effect might result from taking a picture in very brilliant sunlight?

17. Explain how exaggerated lighting effects may defeat the purpose of a news picture.

18. Select two pictures from a newspaper which appear to have been made from prints which were rated as good copy for reproduction with the coarser screen used by newspapers. Be prepared to point out evidence of clear-cut images, adequate detail, range of tones and contrast.

19. Select from a newspaper a picture which appears to have been made from a print which was not such good copy as those from which the pictures selected for Exercise 18 were made. Be prepared to point out defects in detail, contrast, or focus.

Chapter IV

ELEMENTS OF PHOTOGRAPHY AND COLOR PHOTOGRAPHY

PREVIEW QUERIES

Why is the image reflected on a film in a camera upside down?

What determines the speed of a camera lens?

What is meant by an $f/5.6$ designation for a lens? If you know the exposure required for an $f/2$ lens, how would you figure the exposure required for an $f/11.3$ lens?

What is the difference between "color-blind" films, orthochromatic films, and panchromatic films? If you have a panchromatic film which is oversensitive to red, what can you do to get correct color values?

Why are negatives often developed less fully than printing papers? Is it better to attempt to alter contrast in a print by short development, to change to a different contrast of paper, or to vary the composition of the developer?

What is the difference between the additive process of obtaining a color photograph on a screen and the subtractive process of obtaining a color photograph on paper?

IN order to discuss news cameras intelligently, we should have an understanding of just what a camera is—what any camera is and how it works.

Let's make a simple experiment. Open the shutter and the back of an old box camera (the Brownie) and hold a translucent bread wrapper against the opened back. Now point the front of the camera toward the window, and on the paraffined paper you will see an image of the window, upside down and in full color. It is that same image which would be permanently recorded in black and white if a roll of film had been exposed in the back of the camera where the paraffined paper was placed. Of course the camera, when film is in it, is shut and dark, otherwise light other than that of the image would record on the film strongly enough to obliterate completely the dim image.

So a Brownie is a camera! So also would be a cigar box with a needle hole stuck in it, and a good camera too, for certain work. A completely darkened room in which there was a white wall opposite one tiny hole at the other end would also be a camera, in the dictionary sense; an upside-down image of the outside scene would appear faintly upon the white wall. The camera we use today is nothing more than a practical application of this ability of a minute aperture to project an image. Captured with film, the image becomes a permanent record.

In the process of adapting our lighttight room—this was known as a "camera obscura"—to the function of a recording instrument, many mechanical features were introduced. Lenses were substituted for a pinhole, this particular improvement occurring even before film was invented; shutters were devised; and the cigar-box effect gave way to bellows or collapsible tubes. The most complex aerial camera performs its function fundamentally in the same way as the Brownie, or the cigar box, or camera obscura. A lens mounted in a lighttight chamber projects an image a short distance away onto a surface supplied with a layer of film, or light-sensitive emulsion.

Essentials of the Camera

A *shutter* allows light to be admitted for any desired duration of time. A diaphragm, or some simple mechanical device, also serves to control the amount of light entering, not in units of time, but in quantity, exactly after the fashion of the iris of the eye, which contracts in a bright light and widens to admit more light in the dark.

The lens, shutter, diaphragm, and film are the working essentials of the camera. We use a lens instead of a pinhole because it can be constructed to admit more light than a pinhole. As the tiny hole in the wall of our camera obscura is widened the image on the wall becomes fuzzier until it is no longer recognizable as an image. A lens can be increased in area, allowing more light to enter, and still give a sharp image of the same size. The lens collects a sufficient amount of light, by virtue of its relatively large area, to allow split-second exposures on our film. Seldom would enough light reach the film through a pinhole to permit exposures of less than a second, even with the most sensitive films in the brightest sunshine.

The Lens

Limitations of the Lens. Now while it is obvious that the advantages of the lens entirely preclude the use of a pinhole in photography today, the lens nevertheless has various inherent physical limitations which we must respect in order to make it serve us.

Most of us have used a common magnifying glass to concentrate the sun's rays onto a piece of cloth with sufficient intensity to ignite it. Perhaps we have held this same glass between an electric light bulb and a piece of paper and seen an image of the lamp on the white surface. If the glass was moved toward or away from the light source, the sharp image blurred and lost its definition with a movement of the lens of a fraction of an inch.

This magnifying glass is the lens of our camera. On the cheaper box cameras the lens is a single piece of glass, as is the magnifying glass. On more expensive cameras several layers of different glass may be cemented together or mounted in combination slightly separated to form a single unit acting like the simple lens but able to perform its optical function more efficiently.

One prime limitation, then, of our lens is that in order to obtain a sharp image with it—or any image at all—a given lens must be placed a certain distance away from the film surface. Not only must a certain separation exist, but, as the object whose image we seek is nearer to or further from the lens, the film in turn must be correspondingly further from or nearer to the lens.

If the lamp bulb of our illustration were moved closer to the magnifying glass, it would be found that in order to get a sharp image the sheet of paper would have to be moved further away from the lens. For each change in the distance between the object and the lens, there must be a change also in the distance between the lens and the image plane—the place where the film is—in order to effect a sharp image of the object.

If the object is distant enough from the lens so that the light rays emanating from it are parallel—the sun's rays, for example, or those from any object several hundred feet off—then the distance behind the lens at which these parallel rays are brought to a sharply focused image is known as the *focal length* of the lens, or its *focus*. A 6-in. lens would focus distant objects sharply at a

point 6 in. back of an optical point or plane, in the lens. A 12-in. lens would give on a film, twice the linear size of the film used with the 6-in. lens, an image showing the same amount of subject twice as large. The longer the focus of the lens, the larger the image size; in other words, the *size of the image is directly proportional to the focal length.* Hence, we use proportionally longer focus lenses on a given camera when we want a larger image. Small, distant objects then can fill up the plate to the edges.

There is another reason for using long-focus lenses. This involves the subject of perspective. In reality, perspective varies only with the distance of the lens from the subject and has nothing whatever to do with the relative focal length of the lens. In portraiture, the long-focus lens is a means of getting a large image of the sitter, not directly a means of avoiding perspective distortion—the oversize effect the camera seems to give hands or knees lying closer to the camera than the sitter's head.

If we fill up the ground glass with the image of the sitter, using a long-focus lens at a 15-ft. distance, we probably will notice little or no so-called distortion. The long lens enables us to get our large image from the greater distance; and it is the greater distance, *not* the long lens, which gives us the so-called distortionless perspective. If our eyes were trained to see things exactly as they are and not as we think them to be, we would notice this change in perspective as we approached or withdrew from a subject. A tall building viewed at short range leans backward just as much for our eye as for the camera lens, and if we look at it carefully we can see that it does, that our brain, not our eye, straightens it out.

The focusing problem is not encountered with the pinhole. All objects near and far will appear about equally sharp whether the pinhole is very close to the film or some distance away (within limits, of course). This is decidedly not true of the lens.

Depth of Focus. We use the term *depth of focus* in connection with this relative inability of the lens to bring to a sharp focus objects not all in the same plane. The pinhole aperture has an almost infinite depth of focus. As the iris diaphragm of the lens is made smaller—"stopped down"—in other words, as the effective size of the lens approaches pinhole size, objects both nearer

to and farther from the camera appear to become sharper, and consequently we say the depth of focus is increased.

This depth of focus depends upon the relative size of the lens aperture. If we have two lenses each giving the same size image on a certain size film, with the iris of the first stopped down enough to admit only half as much light as the other, then the first will have greater depth of focus and show objects not in the focal plane more sharply than the other lens. Now if this lens were no bigger than the iris, we would then say in comparing it with the other that it had greater depth of focus. This greater depth of focus is gained at the expense of size. The larger lens admits more light, allowing shorter exposures or exposures in dimmer light, but depth of focus has been sacrificed.

The law of optics allows enough to each quality to make lenses decidedly worth-while investments; the depth of focus sacrificed in gaining speed is not necessarily too great. There is only compromise, however; we cannot gain advantage in one without a loss in the other. We can evade this law of optics. Theoretically but one plane is in sharp focus at a time; the planes which look sharp to the eye are nearly enough sharp to appear so. Actually, the rays of light from these other planes are not points but tiny circles small enough to be seen as points and therefore appearing sharp. Consequently if we employ a very short-focus lens giving a small image the fuzzy circles will be proportionately smaller than those on the larger image. The eye, even when viewing an enlargement made from the smaller negative, will see objects not in the focal plane as sharp images. They will appear sharp relative to the sharpness of the entire print, which cannot, of course, ever be so sharp as a contact print from a good lens. Hence by a sort of optical illusion we think we have something for nothing. The extremely fast lenses in use today, with their "great depth of focus," are found only on the smaller camera sizes; they are impractical on larger ones because the depth of focus is so small.

Speed of the Lens. The amount of light any given lens admits —in effect, its speed—bears no relation to its size as such; a miniature-camera lens the size of a walnut may be faster than an old 10-lb. portrait lens. The speed of the lens is determined by its area (which depends on the diameter) *in relation* to its focal length.

It is expedient to have a standard measure of speed so that we may compare directly the speeds of lenses whose focal lengths are different. Suppose our lens of 6-in. focal length has a diameter of 1 in. Then this ratio, 1:6, becomes a pure number which may be compared with other similar ratios. Thus, a 12-in. lens with a diameter of 2 in. would give a ratio of 2:12, which equals 1:6, and we could then say that the lenses were of the same speed. It makes no difference what the units of measurement are, whether millimeters or inches, provided each lens's measurements are made by the same units.

In measuring the lenses, the ratio is written as a fraction with the numerator reduced to one so that it may be dropped and the simpler numbers remaining as denominators may be compared directly. In this case we would say that both these lenses have a speed of 6. This is usually written f.6 or *f*/6. A lens of 8 in. focal length and an aperture diameter of 1 in. would then have a speed of *f*/8; as also would a lens of 16 in. focus and a 2-in. aperture, or one of 4 in. focus and ½-in. diameter.

Our lens is frequently stopped down in practice to achieve greater depth of focus. Obviously the speed is then decreased. The iris diaphragms on lenses are marked with an *f* number in such a way that the photographer knows exactly how much his speed is decreased in terms of exposure. A series of *f* numbers appear on the lens barrel, each one indicating a proportionately greater amount of exposure required to admit the same total amount of light as the opening becomes smaller.

This series of *f* numbers is derived in this fashion. The amount of light admitted by the lens is directly proportional to the area of the lens. The area of the lens is proportional to the square of the diameter, and therefore the speed of the lens is proportional to the square of the diameter—except that to be precise we should say the slowness of the lens. If we wished to compare a lens found to have an *f* value of 8 with one of *f*/11, we would square each figure, giving 64 and 121 respectively. This is practically a ratio of 1:2. We therefore say that the *f*/11 lens is two times as slow as the *f*/8 lens, or, because our speed is in inverse ratio to slowness, that the *f*/11 lens has one-half the speed of the *f*/8 lens. With this fact before us, we would know that to give a correct exposure to a film using an *f*/11 lens, we should have to give twice as much time as we would for the *f*/8 lens.

The series of *f* numbers marked on all lenses is universally standardized so that each succeeding larger number represents a decrease in area of one-half the preceding size. This gives us an instantaneous clue to the change required in exposure when moving from one stop to another, or to another lens. The series used by British and American manufacturers runs:

f/2 2.8 4 5.6 8 11.3 16 22.6 32 45 64

The *f*/11 of our illustration (*f*/11.3 more accurately) then requires twice the exposure of an opening of *f*/8; *f*/16 requires twice the exposure of the *f*/11.3 opening, etc. An *f*/16 opening would require four times the exposure of an *f*/8 opening, since the square of 8 is 64, the square of 16 is 256, and 256 is four times 64. Most Continental cameras use a similar system except that the points calibrated happen to lie about midway between those on the British and American system, running *f*/6.3; *f*/9; *f*/12.7; *f*/18; etc. But each succeeding number in each system indicates an aperture of half the area of the preceding one and a consequent increase of twice the exposure for each calibrated stop.

The largest aperture of many lenses does not happen to fall on one of the calibrated points, lenses of speed *f*/3.5 or *f*/4.5, for example. To compare the speed of such a lens with our known stop system, we merely square the *f* value and compare it with the nearest stop mark on the system. Thus, *f*/3.5 squared becomes 12.1. Compared with *f*/4 we get a ratio of about 12:16 or 3:4. It would then be necessary to give only three-quarters the exposure with this lens wide open as with one set at *f*/4; or, out the other way, an *f*/4 lens would be four-thirds slower than an *f*/3.5 one and so would require four-thirds, 1⅓ times, more exposure, which is one-third more.

Working similarly we find that an *f*/1.5 lens is not quite twice as fast as an *f*/2, although *f*/2 is the next smaller stop marked on the *f*/1.5 lens but is actually only one and four-fifths as fast. (This, in practice, is a difference too small to concern us.) The largest opening on a given lens, then, is not necessarily exactly twice as fast as the next stop opening—although of course this is true for the other marks—but only indicates the relative maximum aperture of that specific lens.

The difficulties inherent in lens making increase tremendously as lenses are made faster or larger, for lenses, even the best ones,

are a compromise with physical stumbling blocks all along the line. No lens will bring light rays of the different colors of the spectrum to a focus at the same plane without a good measure of coercion, and then this is accomplished only partially. As we increase the focal length of the lens this problem becomes more acute, since the absence of a common focus becomes more apparent to the eye and the different colors are coming to varying focuses further and further apart.

Other problems beset the lens designer. *Chromatic aberration* is but one of a nestful. A photographic lens cut from one lump of glass has curved—spherical—surfaces. Light rays coming from the edge of such a lens do not come to a focus on exactly the same plane as do the center rays; this of course tends to blur over the sharp image formed by the center of the lens with an unsharp one formed from the marginal rays and is called *spherical aberration.* Both these faults may be corrected by the addition of a compensating lens to our original lens. The compensating lens is not a convex one like the magnifying glass but is here a concave lens which counteracts the two faults.

Astigmatism in Lenses. One of the most serious faults and most difficult to correct is astigmatism. It becomes a more serious factor as lens speed is increased. It is the same defect which we know as astigmatism in the human eye.

Astigmatism affects only those light rays which enter the lens at an angle, or obliquely. The oblique rays do not come to focus at a point but as two separate lines; as an illustration, the image of a minute cross could never be entirely sharp. Either leg could be brought to focus but always at the expense of the other, which would remain blurred. With very fast lenses, where most of the rays enter obliquely, astimatism becomes a serious drawback.

Today most lenses are "astigmats"—corrected for astigmatism. The first to be so corrected was the famous "Protar," by the addition of a new glass called "barium crown" to the lens. That was in 1890, and from that time on the construction of fast, well-corrected lenses became practicable.

The Film

Having projected an image through the lens, we must look at the substance upon which the image is recorded, the *film* (Fig. 8).

Film consists of two parts: a support, generally of glass or a cellulose material, and the light-sensitive *emulsion.* The emulsion, coated on the support, consists of a *silver halide* mixed into gelatin. A silver halide is a chemical salt of silver bromide, chloride, or iodide. Film emulsions are silver bromide, formed by a combination of silver nitrate and potassium bromide (or similar materials) poured separately into the dissolved gelatin, from which the unwanted salts are then washed. When a small amount of light strikes a silver bromide emulsion it affects the emulsion in such a way that a photographic developer reduces the silver bromide to minute particles of metallic silver. The particles of silver are relatively opaque, appearing gray or black to the eye.

If a light-sensitive bromide emulsion, then, is placed in the focal plane of the camera and the correct amount of light is admitted through the lens—if it is exposed, in other words—we may develop the film and obtain a record of the image. The bright portions of the image will be represented by a dense deposit of silver particles, appearing opaque when held up to the light; dark portions of the image will appear on the film, since it received no light in these areas, as unexposed areas containing no opaque crystals of silver; and all the varying intensities of light in between these extremes will be represented by silver deposits of varying densities, of varying shades of gray.

This image we have obtained on our film is known as a negative (Fig. 10). It is a negative, or more correctly, a reverse of the monochromatic representation of our original subject. On the negative, black areas of the subject are shown as white (that is, translucent) and white areas as black or opaque. From this negative we may "print" any number of positives, any number of photographic prints. We could have used a paper negative material and then chemically reversed the negative to obtain a positive. We then, of course, could not readily obtain duplicate prints without recopying the picture. This is the method used by street peddlers and the ten-cents-in-the-slot machines.

Printing the Negative. There are several ways of obtaining prints from the film negative, but the simplest is contact printing. When our negative has been developed, we place it in close contact with another light-sensitive emulsion, generally a thin coating on paper. The print is now exposed; in other words, a

light is shined through the negative onto the paper positive. The positive will then be darkened by development just as the negative was; but this time our image will have the correct values. The opaque portions of the negative, which were the bright parts of our original image, will prevent light from reaching the paper emulsion in those areas and we shall get the white of the paper corresponding to the whites of our image. The trans-

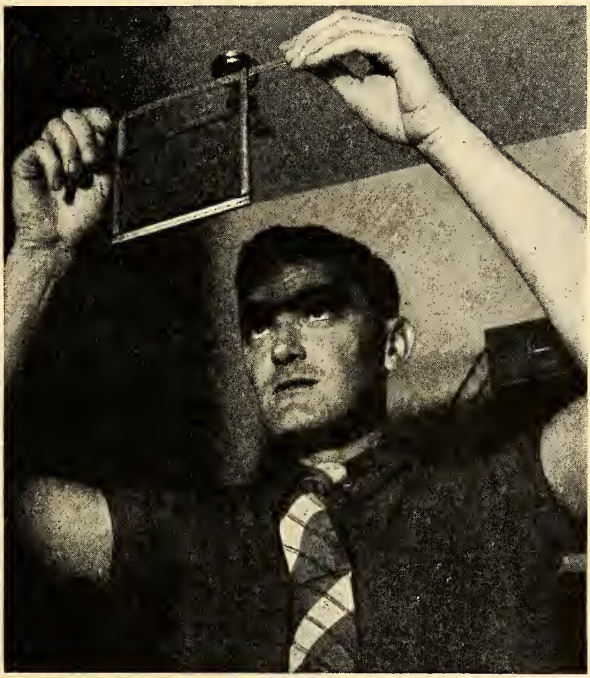

Photo by Harold Rhodenbaugh.

FIG. 10.—The news photographer examines the negative of the photo he made at a fire. In this negative, black areas of the subject are shown as white or translucent, white areas as black or opaque.

parent portions of the negative, which were the dark parts of the original image, will pass light through to the paper, allowing it to develop up toward black in those areas. Thus we have made a photograph.

The Importance of the Developer. We never could have accomplished this were it not for certain unique properties of the silver bromide emulsion and the developer used on it. A photographic developer, in chemical parlance, is a reducer. This means in

effect that it is a substance that will react with a metallic salt (like silver bromide), break it up, and leave metallic silver.

Now the silver halides have this peculiar property, that if they are exposed to a certain amount of light they will appear the same to the eye, but may nevertheless be reduced to metallic silver by a developer. Photographic developers are unique reducing agents, in that they will, when correctly used, reduce to metallic silver *only* those particles of silver halide which were exposed to light. Hence we have a combination, a team, which records for us in black and white different light intensities. That is one of the principal cornerstones upon which modern photography is based.

Films, even as lenses, have definite limitations of performance. They are never fast enough for us, even though we of course adapt to their capabilities. Now with the advent of the miniature camera and extreme enlarging, they are not grainless enough. The little clumps of silver grains hamper detailed definition with 10- or 20-diameter enlargements. Nor are we ever entirely satisfied with the way in which films convert into values of gray the brightness of different colors.

Film does not translate into monochromatic values colors with the same relative brightness that our eye sees in them. In fact, in the earliest days of film manufacture, emulsions were sensitive almost exclusively to ultraviolet, violet, and blue. All other colors photographed as black instead of varying shades of gray. These were the so-called color-blind films. For many years *orthochromatic films* have been most widely used. Orthochromatic, meaning correct color, belies itself, for orthochromatic film actually is entirely insensitive to the red end of the spectrum and, although responsive to yellow and green colors, is not so responsive as the eye. The eye sees yellow as a very bright value; the film records it as a rather dull gray. Any object colored pure red photographs black; lips, for example, photograph very dark. For some years now, increasing use has been made by newspapers of a film which is really capable of rendering in a monochromatic scale of grays the intensities of colors as our eye sees them. It is sensitive to all colors, including pure red, and is known as *panchromatic.*

An "undoctored" silver bromide emulsion is sensitive only to the blue end of the spectrum. The addition of minute quantities of coal-tar dyes renders films sensitive to the remainder of the

spectrum. However, even dye-treated film remains more sensitive to the blues and violets than to the rest of the colors. This runs counter to color sensations as they affect the human eye. Yellow appears brighter or lighter than any of the other colors, and, as we look toward the two ends of the spectrum, the colors grow darker.

Having made the film sensitive to all colors, it is now necessary to cut down its sensitivity to the blue end of the spectrum by some other means, provided we want correct color rendition in monochrome. If we do cut down the sensitivity of the film in any portion of the spectrum, by whatever means, we sacrifice speed.

Photographic Filters

Photographic *filters* are glass or gelatin disks dyed to transmit or absorb any desired colors. We use them in front of the lens, ordinarily to restrain the violet light, or sometimes to make use of only certain colors in the taking of the picture. The commonest filters appear to the eye as pale yellow, greenish, or dark amber yellow. These transmit most light except ultraviolet and some of the blue, thus counteracting the innate tendency of the film to greatest sensitivity to blue and violet. Since the filters absorb some light, exposure must be increased to compensate.

In recent years, panchromatic emulsions have been developed which are oversensitive to red rays. These films are very fast in artificial light because ordinary electric lights emit a high percentage of red and yellow light. To gain correct color values with such a film—if we can afford to sacrifice some of its extreme speed—we must use a filter which will absorb some of the red as well as the blue rays. A green filter does this. It looks green, but of course it is not a pure green, for then all colors except green would photograph black.

Manufacturers of both films and filters issue tables telling just how great an increase in exposure is required with a given film and filter combination and under various light sources. Not all combinations work, of course. For example, a red filter used on a color-blind film would exclude all but red light and therefore render that particular film useless; whereas a red filter used on a highly red-sensitive panchromatic film in a room illuminated with a reddish light would cause almost no increase in exposure.

Film Exposure and Development

So far, we have said practically nothing about exposure or about developing the film. Most of this will be discussed under technique. Here we shall touch on the theory of these subjects just sufficiently to give a background for understanding the practical information.

First we may mention the problem of exposure. Obviously, for any given lighting conditions and for any particular film there is a single theoretically correct exposure which the film should receive in order to present a faithful record of the tone values of the subject. If we give too great an exposure to light, the entire film will be reduced to metallic silver and the variations from unexposed area to fully exposed area which constitute the image will have been lost. With too little exposure, either no image will appear or an image will be produced in which only the high lights of the subject have registered on the film.

Most film has a wide *exposure latitude.* In other words, it will still give a printable image even though the exposure is varied within wide limits. Suppose we have a known correct exposure of one second. Ordinarily, we could expose this same film as little as $\frac{1}{10}$ sec. or as much as 10 sec. and still obtain a recognizable impression of the subject.

That means a workable range in the neighborhood of 1:100, which is pretty wide! Just because the range is wide we have no excuse for failing to ascertain the exposure as accurately as conditions will permit in each circumstance. The underexposed negative gives a distorted rendering of the values in the subject; brightly illuminated portions of the subject will stand out, while darker portions will be too dark and lack detail. With overexposure, the values of the subject become compressed into a shorter scale of values until the compression reaches a point where all values are so overexposed that there is little visible difference between them.

This idea of the variation in the density of the film with a variation in exposure may be plotted on a graph in what is known to photographers as the *characteristic curve.*

Suppose that on our graph paper equal spaces represent constantly doubled exposures. Thus the first space on the graph stands for an exposure of 1 sec., the next space 2 sec., the next

4 sec., and so on, 8, 16, 32, 64 sec. This corresponds to practice in exposing negatives, so we must remember that the equal spaces on the graph mean a doubling in exposure, and *not* just a simple arithmetical progression, 1, 2, 3, 4, 5, 6, etc.

On the graph paper we now draw a curve which stands for the increasing density of the film as the exposure time is doubled and then doubled again and yet again. Starting at the lower left-hand corner of the graph, we place a dot indicating the density of the film at the end of 1 sec., then a dot a little higher indicating the density after 2 sec., etc. When these dots are all joined together they will look somewhat like an elongated S, with the lower left portion of the curve at the beginning rising rather steeply, then moving upward for a space in almost a straight line, and then curved again at the upper right. The lower left curve represents *underexposures* of the negative, and the upper right curve *overexposures.* Correct exposure lies somewhere in the middle or *straight-line* portion of the S, where film density is increasing evenly with increased exposure.

Imagine this curve as formed by increasing layers of silver deposit for each doubling of the exposure, and the reason for correct exposure becomes clear. In the first part of our curve, that is, in the thinly exposed portion of the negative, where the silver deposit is very small, it is seen that the density is increasing at a rate faster than the exposure. Each time we double the exposure, the density added is greater than the previous time. A bright portion of an image would be proportionately denser on the negative than it really should be. Hence in the final print this bright portion would be represented by an area brighter in proportion to the rest of the print than it was in the original subject. Thus, by underexposure the values are *stretched out* and the brighter they are in the image (or the denser on the negative) the more out of proportion to other values or tones they will appear.

The *middle section of the characteristic curve* is a straight line. Density of the film is increasing evenly with increases in exposure. Each time the exposure is doubled, a new layer of density is added, and each layer added is exactly the same thickness as the previous one. This is as it should be for correct value reproduction. Under these conditions *an area in the image which is twice as bright as another area will expose the film twice as much and will*

produce a corresponding increase in density in the film. This will result in a range of values exactly equal to those in the image. We have just seen that this would not have been the case with an underexposure.

When we get to the top of the characteristic curve and are working with overexposures, we find that density is increasing less than it should in proportion to the exposure. The curve flattens out, indicating this. With overlong exposures the values are compressed; the darker tones of the image continue to create further density in the negative, while the brightest tones of the image tend to slow up their action on the film.[1]

The theoretically correct exposure, then, lies in this *straight-line portion* of the characteristic curve. In actual practice this is seldom exactly achieved—particularly under news-gathering conditions. Nor is it always desired. A variation from the ideal exposure of from two to four times will not ordinarily seriously distort the values, although of course the exact amount of variation given a particular film depends on the range of values in the subject. If the values extend over a range as great as the straight-line portion of the curve, then there is but one really correct exposure. If the values are less than that range, there may be several exposures equally correct. If the values are much longer than the straight-line portion, then it is obvious that some portion of the subject will not be reproduced with theoretical correctness. Occasionally—as will be discussed later—we deliberately alter the exposure because of some peculiarity in the subject or because of a desire to obtain a specific effect by distortion. The fast modern panchromatic emulsions gain some of their speed by having a very long "foot," or first section of the curve, which is intended to be used when speed is required. The distortion is far from serious—the foot practically has a straight-line section of its own—in fact, often a slight underexposure gives more pleasing tone values.

When we strive for a perfect negative, we must remember that our end product is seldom a negative or even a positive trans-

[1] Much greater exposures cause the phenomenon of reversal of the image, that is, we find ourselves not with a negative but with an extremely dense positive image. This peculiarity enables manufacturers to make "direct positive" films for producing copies without any intervening negatives. Exposures are necessarily many times greater than those for obtaining regular negatives.

parency, but is a sheet of coated paper (with the real end product being, in the case of the newspaper, a screen engraving). A long brightness range, that is, a long scale of values from light to dark, must be compressed if it is to be fitted onto a sheet of paper or else some of the values at one or both ends of the scale must be sacrificed.

A transparency viewed through a bright light can faithfully reproduce, value for value, the brightness range of most subjects. However, on a sheet of paper the brightest high light, instead of being an actual light, can be shown only as bright as the paper is white and the blackest black is no blacker than the blackness of the silver particles on the paper.

We may state these brightness-range concepts in round numbers. A fast panchromatic negative can faithfully reproduce a brightness range of about 1:250. It can reproduce with an acceptable degree of distortion a brightness range two or three times greater. In other words, if the darkest shadow area in a landscape reflects a light of unit intensity, and the brightest high-lighted area is about 250 times as bright, then we could exactly duplicate this range on our negative. We could also reproduce it on a positive transparency; we could not reproduce this full scale on a printing paper, for the printing-paper range will not run more than about 1:25, or 1:80 at the best. The consequent result is the compression of the values and, except for commercial subjects where infinite detail is important, some of the values will be sacrificed in either the shadow end or the high light end if we produce a print with any degree of brilliance.

Manufacturers do not offer much quantitative information about their films. They merely state that such and such a grade of film is for a particular purpose. The fast panchromatic emulsions generally have the longest range. *Process* film has the shortest, for a very small difference in value in the subject will make a marked difference on the film. It is used primarily for copying printed matter and line drawings. In between these two films are others giving varying degrees of contrast and supplied in various degrees of color sensitivity.

With the aid of a good photoelectric-cell exposure meter, it is possible to make actual readings of the light intensities of most subjects. The high lights and shadows of a studio subject may be quickly checked to see if they fit within the known range of the

film emulsion. Exposure meters of any sort are not much use to the news photographer. There are several reasons for this, the first and most obvious being that he seldom has time enough during assignments to fuss with the instrument; the picture may be gone and all he will have for the editor and his own trouble is an exposure reading of a scene already marched on with time! Another reason is that the flash bulb used so frequently is an unvarying light source which could not be read by an exposure meter anyhow. The man who is photographing picture after picture day after day, and always seeing his negatives developed, just does not need an exposure meter. He might, if film latitude were not what it is or if his end result had to have perfect quality for presentation as an enlargement.

The newspaper which maintains a studio and does still-life or advertisers' photographs or architectural work might investigate the possibilities of an exposure meter. Of course, a photoelectric cell meter is a *sine qua non* for natural color photography, than which nothing is more exacting.

Theory of Development. We must now touch upon the theory of development. Some of the developing agents most used are: metol (also known as Elon); hydroquinone; pyro; glycine; paraphenylenediamine. The first two are most common around the news plant. Pyro may be used by those who wish something a little different or who are accustomed to it. The last two are used chiefly for special fine-grain developing.

Most developers cannot develop the film effectively in water alone. Other chemicals are added to assist the developing agents. For one thing, being chemical reducers, they oxidize rapidly. A *preservative* is added to impede the too rapid disintegration of the developer. Sodium sulphite is universally employed for this purpose.

An *accelerator* serves the purpose its name implies; most of the developing agents will develop very slowly if an alkali is not added to the solution. Sodium carbonate is the customary alkali, although maximum-energy developers may use a stronger one.

A solution of these chemicals with the agent constitutes the developer, usually known as "soup" to the newspaper man. Sometimes there is another chemical added, a *restrainer*. This does several things; it slows up the developing process at the start, it prevents "fog," and on prints it has the same effect upon

the "color" of the black of the silver salt and allegedly produces clearer high lights and better shadow detail. Potassium bromide is the restrainer.

"Fog" is the term used to describe deposits of metallic silver on the film which are foreign to the image. It may be a thin deposit of silver all over the image, or it may lie only in certain areas. It can be caused by light, by static electricity, or by chemical means. Potassium bromide for some reason has a more pronounced restraining action on chemical fog than upon the image. Therefore it is used to keep negatives and prints free from the grayed effect of some chemical fogs.

The developing solution reduces the exposed silver salts to metallic silver; it has no effect upon the unexposed salts, which remain light-sensitive. Consequently, the film, after rinsing, is placed in another bath whose function is to remove all the unexposed silver bromide, leaving a transparent film support with only the solid silver of the image remaining in the gelatin.

This process is called *fixing* and is done by sodium thiosulphate, commonly known as hypo. Nothing further remains to be done to the film except thoroughly washing away the hypo and drying the gelatin. We may now make as many prints from the negative as are desired. Printing papers are manipulated very much like film.

We have seen how a change in the exposure can alter the relative values of the image. Variations in exposure can distort the black and white rendition of the subject. It is prevalent error that we can also distort the relation of the values of the subject by changes in the method or time of development. This is emphatically not possible. Changes in the developer or in the time of development do alter the contrast of the negative, but not the relation between the tones.

This requires some explanation. We saw how an underexposure of the negative makes high lights proportionately brighter than shadows. If development is prolonged, the high lights will grow denser, up to a certain limit, but the shadow portions will also grow denser, and proportionately with the high lights. We can change the over-all contrast of our negatives, then, by longer or shorter development.[1]

[1] *Gamma* is a term used to measure contrast of negatives, having significance only when dealing with correct exposures—the straight-line portion

Printing papers, unlike film, should always be developed fully, because they reach their full contrast at an early stage of development, and short development, by not allowing all the halide to develop, prevents the print from reaching its full richness and quality. Rather than attempt to alter the contrast by short development, we should change to a different contrast of paper or vary the composition of the developer.

There are two chief methods of printing, of which one, contact printing, has already been mentioned. The other is projection printing. Here we are concerned only with the theory, and that is very simple. The negative to be enlarged—"blown up," in the trade—is placed in a projection printer or enlarging camera. An enlarging camera is mounted so that it may be moved easily along the lens axis. The negative lies behind the lens just as in picture taking. Behind the negative is an evenly illuminated light source. If the lens is now correctly focused, an image of the negative will be projected in front of the camera just where the object plane would lie in picture taking. The device is a sort of hind-side-to, or reversed camera, the image now being the negative, the object plane being the image to be printed. The lens and the paper support, or easel, may be moved so as to obtain any size projection of the negative. The image is an exact replica of the negative and will print onto sensitized paper just as though the two were in contact.

Color Photography

We now turn from our discussion of first principles in photography to the theory underlying one of the most fascinating branches of photography, namely, the reproduction of color in color. The idea behind color photography is rather simple and has been understood since the nineteenth century. The practical problems encountered in developing consistent, workable processes have been and still are many and intricate. Progress today in this field is very rapid. The principles remain the same.

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of the characteristic curve. A gamma value of exactly one (1.0) represents a negative the contrast of which is an exact counterpart of the range of values of the original subject. One large film manufacturer is now including tables showing the developing time necessary to obtain various gammas. These are not important to the news photographer but are indispensable in color photography.

The human eye sees a few of the varying wave lengths of the material or energy we call light as different colors. We see either actual colored light, like a red lantern, or we see what we call colored objects which only reflect color to us. We say that a red lantern emits red light; we say that a red object looks red to us because the red object *absorbs all colors except red*, reflecting only red light to us. Green paint looks green to us because it absorbs all the wave lengths of light except those which our eyes interpret as green.

Examine any pure pigment other than red in red light. It will absorb all red light and since it is illuminated only by red light it will appear black to the eye. In a green light, a red object will likewise appear black, while a pure green color will appear white, like the light source, in other words. Look at a piece of white paper with some red paint on it in a red light. If the red paint is really a pure red, it will disappear under the red light. The reason is that the red paint, by being red, reflects all red light, and, since the light is also red, the red paint reflects all the available light and we see it therefore just as light as the white paper.

Color photography first had to take cognizance of this explanation of color phenomena. It next applied a principle discovered in 1807, namely that any or all colors may be produced by some combination of three primary colors; red, green, and blue-violet (usually just called blue). None of these three colors can be obtained from any combinations of any other colors, but all other colors may be obtained from some combination of these three.

In order to avoid confusion, it must be noted that we are speaking here of actual color, color as sensation rather than color as pigments. The latter are not themselves, accurately speaking, colored, but appear to have color only because of their faculty of absorbing and reflecting light wave lengths selectively. The primary colors usually used by the artist or photoengraver, akin to the familiar red, yellow, and blue, are a sort of converse—actually the complementaries—of the primary light colors and will be dealt with later.

Combining Primary Colors. Let us see how we obtain other colors from our primaries. A pure red light added to a pure green light produces yellow light. This may be proved by shining a red spotlight on a white ground, and then sliding a green spotlight over upon the red one, whereupon the mixture will produce a

yellow light. If we now add a pure blue-violet light to the yellow, the resultant mixture will again go to white. Remove the blue, and yellow remains; or remove the green, and the red and blue remain, giving a magenta hue. If only red is subtracted, the blue and green remain, appearing blue-green to the eye. Combinations of these colors in varying degrees will produce any other known color. If then we can obtain an exact record to tell us how much of each primary color lies in each tint of our subject matter, we have made a start in duplicating the color sensation of the original.

Here, briefly, is how these principles serve photography. We may now make three ordinary black-and-white photographs of a colored object, each one taken to record the density range produced by each of the primary colors. So we make three separate photographs of some varicolored object. One is photographed through a pure red filter. The filter, being red, will absorb all colors except red, which it will transmit. Another negative is made with a green filter, which passes only green light reflected from the object. The third negative is made from a blue filter, and hence we have a blue record of the object, a black-and-white image affected only by the blue components of the light reflected from the object. These three filters, in the order named, are known as the tricolor set, A, B, and C, respectively.

Black-and-white transparent positives made from these three negatives would be a record of the amount of each primary color in the subject. A positive, in other words, of the red filter negative would show any pure red objects in the subject as white (white on paper, transparent on a transparency), while all other colors would appear as black or opaque. Actually few colors in nature are pure primaries, so we would have many shades of gray in the picture where natural tints had contained small amounts of pure primaries which they had reflected. Similarly, the positive from the blue record negative would show blue as white or transparent, and all colors which contained no blue as black, with colors containing some pure blue as varying shades of gray. A white section would be transparent, or white, on each of the positives.

We now have three positives, each representing accurately with a scale of silver densities the amount of each of the three primaries

in the subject; and since all other colors are made from some combination of the primaries, we have a record of *all* the colors in the subject.

In order to turn our black-and-white color-quantity records into a colored picture, we project each image upon a white screen. We use pure red light as the light source behind the red record positive, for in doing so the red portions of the subject which were transparent on this positive will allow the red light to pass through and record as red on the screen. In a similar way, the green-filtered positive is projected with a green light source, and the blue one with a blue light. If these three images are drawn together on the screen into correct register, a luminous accurate color reproduction of the original will appear. The red light, as we said, shines through the transparent portion of the red transparency to form red. No other color will fall upon the spot which is supposed to appear as red, since in taking the picture with the other two filters we automatically prevented any red light from even entering the camera. Only green passed the green filter; only blue passed the blue filter. But a green portion of the object will appear green, since the green filter only allowed an image to be produced by green light, leaving a silver deposit on the negative and a transparent portion on the positive.

What about a yellow portion? Well, we saw that yellow light was composed of both green and red light. Consequently both the red and green filters passed light through to that spot, so our screen image receives both red and green light, which combine or add up to form yellow. A brown object in the subject would reproduce correctly and would look brown because brown contains a certain portion of each of the primaries, and so a little of each would show on the screen, to just the same extent as they were allowed through the original "taking" filters. White results from equal amounts of all three colors, black from absence of all three. A gray results from a little of each of the primaries in exactly equal amounts.

That is the underlying principle of all color photography whenever employed today. It is done in different ways, but always on the same principle. The picture we have just achieved in color on a screen can be supremely accurate in its colors and in its interpretation of a wide range of light intensities; but it is an awkward way of presenting a color picture, and it is not on paper.

Its color accuracy theoretically is limited only by the purity of the light filters obtainable, just as in the printing of color pictures onto paper or on a printing press the accuracy of the color reproduction is limited chiefly by the pureness of the dyes available. Theoretically perfect dyes have not yet been found for all the primary colors. The blue dyes are the worst sinners.

We can get a color print on paper from the same three negatives with which we started out. We might proceed like this. First, make three transparent positives from each of the three original negatives. After being fixed and washed, the three transparencies are bleached in potassium bichromate. Bichromates have the unique property of hardening (rendering insolvent in water) the parts of the gelatin which contain the silver salts. If the bleached transparencies are then swished around in warm water for a few minutes all the gelatin which was unexposed—the high light portions of the image—will be washed away from the celluloid film support. Furthermore, the gelatin will remain sticking to the celluloid directly in proportion to the density of the image; this results in a transparent image of the subject detectable only as a deposit of gelatin of varying thickness. The blacks of the unbleached transparency will remain as full deposits of gelatin, the white of the subject will consist only of the celluloid base with all the gelatin washed away, while all the middle tones of gray will be represented by gelatin deposits of varying thickness.

The next step is to stain or dye each of the three transparent gelatin images with the suitable color, and then superimpose them upon a sheet of white paper. If this were correctly done we would have a paper print of our original subject in color consisting of three layers of tinted gelatin.

Our first thought would be to dye red the gelatin image originally printed from the red filter negative, and similarly for the other two. Suppose this were done; what would happen? Something very far from the results anticipated because of the fact that in superimposing these colors upon a sheet of white paper we are not dealing with the addition of colored light as described in making our first color transparency, or more correctly, our light picture. We said that a red light added to a green light would make yellow light; but transparent red and green gelatin images placed upon a sheet of white paper are not

light images. By placing a sheet of transparent red gelatin upon the white paper we color the paper red in effect, and a red-colored object by definition was an object which absorbed all colors except red. The white paper reflects all colors, but the red gelatin continues to allow only red light through it, so that only red light can be reflected back from the combined gelatin-paper surface. If the green transparency were piled on top of the combination we would see only black, since the red would allow only red light through and the green transparency cannot pass red light anyway. Thus no light would return from the white paper surface.

Therefore to achieve on a sheet of paper a natural-color picture we must employ a different color approach from that used for adding colored lights. The adding of a light is called the *additive* process. We call the process used to print on paper—or any reflecting surface—*subtractive,* for when we place a color, whether dyed gelatin or pigment, on a white surface, we are taking away or subtracting color. The red gelatin absorbs or subtracts from the paper all colors but red.

We employ a rather roundabout means of coloring our paper prints. Red light subtracted from white light leaves blue-green light. We print the red-filter negative onto the white paper from a gelatin printer which has been dyed blue-green, for blue-green is white minus red. We print on paper not by adding colors (which would only add to black) but by subtracting them from white. We might look upon the matter as an inverse process, printing with the shadows rather than with the lights.

Let us see what the dye colors should be. White light minus red leaves blue-green, now called cyan when speaking of the blue-green color as used in subtractive color processes, upon recommendation of the Society of Motion Picture Engineers. White minus blue leaves red-green, which we call yellow. White minus green leaves red-blue, technically called magenta. These, then, are our three *subtractive printing colors:* magenta; yellow; blue-green, or cyan. We call the positive made from the red filter the blue-green printer; the one made from the blue filter the yellow printer; and the one made from the green filter the magenta, or red, printer.[1]

[1] Now suppose we follow the color changes of a photograph of three squares of "colors," red, white, and black. The red filter positive we agreed

All practical methods of taking and printing color pictures represent some adaptation of these underlying principles.

We always require three distinct photographic records for taking color pictures. They may be made separately one after another, as may be done in photographing still-life subjects on an

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to dye up in the complementary or minus color, blue-green. We called it the blue printer. The transparent portions of the positive, which would transmit red light if we were making an additive picture on a screen, will now leave bare white paper when printed. The black squares will be dyed blue-green on the paper.

The positive made with the green filter is dyed magenta, and the red square will now receive a layer of magenta dye, since the green filter would record red as opaqueness, and we have dyed the opaque or shadow portions of our transparency printer with magenta dye. Also, of course, the black square will receive a layer of magenta dye.

What color, then, is the black square two-thirds of the way through the process? We reason it out this way. First, the white paper received a coat of blue-green, a coat of minus red. Thus, the blue-green absorbs red light, but allows both blue and green to reflect back from the white paper. Magenta, which is minus green, therefore absorbs green but allows the white paper to reflect back both red and blue. So we now have the blue-green dye reflecting blue and green; the magenta dye reflecting blue and red. But the dyes are superimposed, and the magenta dye cannot pass green light, so the green from the blue-green dye is absorbed by the magenta dye. Similarly, the blue-green dye cannot reflect red, so the red which was passed by the magenta is absorbed by the blue-green dye. The only color which can reflect back through both the dyes from the white paper surface is blue, and at this point the black spot looks pure blue.

The same reasoning will tell what colors should result when we add the third dye image. The third, printed from our blue filter negative, is also dyed to its own minus or complementary color. Blue light subtracted from white leaves red and green, which we called yellow. The yellow-dyed image is now added to the paper.

Again, since we are printing from the shadows, as it were, the red of our original subject, opaque in the blue filter transparency, will now receive on the paper a layer of yellow dye. The magenta pigment already applied will, as we have seen, absorb green light, transmit red and blue. The yellow dye absorbs blue (since it is minus blue) but transmits red and green. The only primary color which each of these two will transmit is red, so the square appears red, for the two dyes absorb one another's other transmitted color. Finally, in the case of the square which is to become black, it is apparent that a layer of yellow imposed upon the blue will result in the absorption of the blue light by the yellow dye, resulting in the transmission of no color, or black. (The student should, by the same reasoning, demonstrate how to arrive at a green colored print, starting with the taking of the picture.)

ordinary camera. Three separate negatives may be recorded simultaneously by the use of prisms and mirrors behind the lens to split the light beam into three components. Cameras constructed for this purpose are called "one-shot" cameras, since they make the three records simultaneously. Again, the three negatives may be placed in very close proximity and exposed as one ordinary negative. The Defender Company's Tri-Pac is such a combination of negatives, the filtering being accomplished by using a color-blind film (sensitive only to blue light) for the blue record and dyes for the other two films. If the three negatives are stripped together on one film support we get almost perfect register of the images automatically. Eastman's new Kodachrome film is made this way. Developing and processing of it are extremely difficult and at present can only be done at Rochester.

Sometimes the three negatives are combined onto one plate or film, not superimposed but juxtaposed. Here the film consists of a fine pattern of alternating red, blue, and green filters in the form of dyes coated on the film base. If the result is viewed with a magnifying glass it appears as many distinct spots of primary colors. Viewed with the eye, the dot formation disappears, and we see only those colors which filtered through each minute filter, thus obtaining an additive color transparency by the addition or fusion of the minute spots of primary light. This is the method used on Dufay film. Finlay plates employ the same method except that the screen is not incorporated into the film. This allows any number of positive transparencies from the original negative merely by placing positive prints in juxtaposition to a positive viewing screen, which correctly filters each individual spot.

In discussing the color-taking materials we have already touched upon several of the means used to obtain the final result. The Finlay and Dufay processes, being additive, can only be viewed as transparencies with each minute square of dye become a filter for the light source.

The Kodachrome transparency is not additive. Each of the three layers of emulsion, after being separately developed and then reversed, black to white and white to black to produce a positive, is dyed in the minus taking color to obtain the transparent color picture. We could no more dye this film up in the

original taking colors than we could the gelatin matrixes used for paper printing, because the primary colors would absorb the white light coming through and give only blackness for a result. The Kodachrome is three superimposed images; the Finlay transparency is three images, but three images broken into thousands of pieces and reassembled one piece next to another, and not one on top of another.

The methods of printing color onto a paper support are too numerous to mention by name. They all operate on the subtractive basis. Many of them print dyes onto the paper by use of the bichromated gelatin described. Possibly the best known method is the Eastman wash-off relief process. The most beautiful results are generally conceded to be obtained by the Carbro process. It is not a simple process, and for consistent results temperature and humidity must be controlled. The print is composed of actual layers of bichromated Carbro tissues, which are supplied as unsensitized pigmented sheets.

Sometimes positive transparencies are made by the subtractive process. If the three dyed gelatin matrixes used for the wash-off relief process are dyed heavily they may be bound together in register and viewed as a transparency instead of releasing their dyes to a sheet of gelatin-coated paper.

Reproduction of colors in rotogravure is the phase of color photography of interest to the newspaperman. The gravure press requires three printing plates inked up with the subtractive colors. In printing a fourth plate is also used, black, to give greater body to the black in the printed result. The gravure expert's task is simplest if he can make his three gravure impressions by photographing them directly from the three original negatives. This means that the use of the one-shot camera is the best from the printer's point of view. He uses the original negatives for his screened plates and the color print as a color guide. When the engraver must use Kodachrome, Finlay, or Dufay for his plates, he in turn must photograph the transparency to obtain three separation negatives.

Close cooperation between the cameraman and the gravure technician are essential for good results. Before undertaking color, a newspaper should examine the facilities of its printing plant to know which color equipment can be successfully adapted to the plant requirements.

A. APPLICATION EXERCISES

1. At the right of a sheet of paper, paste upside down a 1-column halftone from a current newspaper. Let this indicate the image of the subject reflected through a camera lens on a film. At the left of the sheet, draw a rectangle somewhat larger than the picture to indicate the original subject of the photograph. Between the two, a little to the right of the middle, make a heavy dot or tiny circle to correspond to the lens or aperture. Draw lines from the represented subject through the dot to the indicated image to show why a reflected image appears upside down when seen through the hooded back of a camera. Explain your diagram.

2. Referring to the diagram made for Exercise 1, write a brief explanation of why a given lens must be placed a definite distance away from the film surface in order to obtain a correct focus, or, in other words, in order to avoid a blurred or indistinguishable image.

3. On this diagram indicate the term applied to the correct distance between the lens and the film for sharp imagery.

4. With a new diagram show how a proportionately longer focus lens will cause small, distant objects to fill up the plate or film to the edges.

5. Clip from a newspaper published within the last month a picture taken with a lens which apparently had marked depth of focus. Explain the characteristics of the picture which indicate this depth of focus. If this picture had been taken with an extremely fast lens, what probably would have been the effect on the depth of focus? Explain why extremely fast lenses are found only on smaller camera sizes.

6. Clip from a newspaper published within the last thirty days a picture which shows news elements in a clear focus but which shows evidence of little depth of focus. Explain what objects in the picture indicate the slight depth of focus. If, as the photographer of this picture, you had wished to obtain greater depth of focus, what procedure might you have followed? What effect would this have had upon your time of exposure?

7. Given a lens with a speed of $f/5.6$, work out mathematically the amount of exposure it would require with the diaphragm wide open in terms of the known exposure for a lens with the speed of $f/11.3$. Explain the proportionate difference in speed in the standardized series used by British and American manufacturers which enables you to determine instantaneously the change required in exposure when moving from one stop to another or to another lens.

B. ADAPTATION QUESTIONS

1. What is the derivation of the word, camera? Explain what is meant by a "camera obscura."

2. What is meant by a "6-in." lens?

3. Explain why the use of long-focus lenses in portraiture *appears* to avoid perspective distortion.

4. Explain why a tall building viewed at short range seems more perpendicular to our eye on casual glance than it does through a camera lens.

5. What would be the *f* designation of a lens of 4-in. focus and ½-in. diameter?

6. Explain what is meant by an anastigmatic lens.

7. What is meant by the light-sensitive emulsion of a photographic film or plate, and what is its chemical composition?

8. When an image is reflected against light-sensitive film in a camera, what about the reflection makes some parts, after development, appear black or gray, other parts light?

9. Why does a chemist speak of a developing solution as a "reducing" agent?

10. Why is a developed film called a "negative"? Why can slot-machine cameras and street peddler picture takers turn out dry pictures more quickly than the film and printing method requires?

11. Explain function in contact printing of the light and dark areas of the film. After a developing solution has made the image clearly visible on the light-sensitive paper, what about the chemistry of the process makes it necessary to place the print in a fixing bath?

12. Explain the two difficulties of light refraction which are counteracted by the use of a compensating lens.

13. Explain the limitation in the earliest days of film manufacture which is corrected by the panchromatic film used today. What limitation of panchromatic film often needs to be corrected, even at the sacrifice of extreme speed? What device is used to make this correction?

14. The ultimate effect of increased exposure of a film is to increase the layers of silver deposit on the film after the developing solution has reduced the silver bromide to minute particles of metallic silver. In the thinly exposed portion of the negative, if we double a given exposure, the ultimately resulting density of silver deposit increases faster than the rate of exposure. In the densely exposed portion of the negative, the density of silver deposit increases *less* than the rate of exposure. With these facts in mind, explain what is meant by the "characteristic curve" in understanding the way in which density of film varies with exposure.

15. In what portion of the characteristic curve lies the theoretically correct exposure?

16. If the range of light values to be photographed is less than the straight-line portion of the characteristic curve, can there be more than one equally correct exposure? If there is a long scale of values from light to dark, what must occur to prevent some of the values from being sacrificed?

17. If the most brightly lighted area of a subject to be photographed is about 300 times as bright as the darkest shadow area, could this range of values be faithfully reproduced on a fast panchromatic negative? Justify your answer. Could this range be reproduced on a printing paper? Explain the reason for your answer.

18. What instrument can be used to determine the correct exposure for studio portraiture or copies of pictures or pages from books? Is such an instrument useful in the usual experience of the news photographer? Justify your answer.

19. Can changes in the developer, or in the time of development, alter the *contrast* of the negative? Can they alter the relation between the tones? Explain the reason for each of your answers to this question.

20. For what purpose is projection printing used?

21. What is the difference between light emitted from a red lantern and the color we see reflected from a woman's red knit dress in daylight? What will be the effect of looking at a pure green pigment in a dark room lit only by a red light? How will pure red ink marks on white paper look in a dark room under a red light?

22. What have the principles suggested in the previous question to do with color photography? What other principle of color phenomena discovered in 1807 is also involved in color photography?

23. Suppose we shine a red spotlight on a white ground. If we then slide a green spot over the red one, what sort of light will be produced? If we now add a pure blue-violet light to the mixture of red and green light, what will be the result? Suppose you now remove the blue. Is there any limit to the colors you can produce with varying degrees of these given colored lights?

24. What developing agents are most commonly used in newspaper darkrooms? What two reducing agents are commonly used for fine-grain developing?

25. What chemical characteristic of developing agents makes it necessary to add sodium sulphite to the solution?

26. What characteristic leads to the customary addition of sodium carbonate?

27. What is chemical "fog"? What chemical is used in a developing solution to prevent fog? What other values is this added chemical said to possess?

28. Distinguish between the basic principle of the additive process for projecting a color picture on a screen and the subtractive process of printing a color picture on paper. Why will the additive process not give us a correct color result on paper?

29. Explain why the subtractive process may largely be spoken of as "printing with shadows rather than lights."

30. If we subtract red light from white light, what results? Blue light from white? Green from white?

31. What is a one-shot camera for color photography?

Chapter V

NEWS CAMERAS

PREVIEW QUERIES

Why cannot news photographers use the fast, compact, little "candid" camera for all purposes?

What does the picture reporter do for shots inside a courtroom or hospital ward, where flash bulbs are forbidden?

What five improvements need to be made for tough, adaptable, speedily operated news cameras?

Can candid pictures be taken with the bulky Speed Graphic?

What is the best camera now known for taking detailed shots of baseball from the press box, of celebrities in a parade, or of a bridal procession emerging from a church?

How is a poor print with a high news value made fit to reproduce?

Why would a news photographer use a flash-bulb speed gun when a bright sun is already shining on his subject?

THE news photographer requires a camera with four features present in some degree, and necessary approximately in this order: (1) adaptability to meet any picture-taking situation; (2) rapid operation; (3) compactness and portability; (4) indestructibility.

Obviously no one camera can satisfy all these requirements equally; nor will every photographer agree that any particular machine best meets the requirements. But at any given time some one camera will be used by almost all newsmen. That they use this one type of camera seems just to happen, although there are good reasons for it. On the large papers it means that parts may be interchanged quickly and that one man can borrow another's camera and operate it immediately. Also it means that negative holders can be borrowed from fellow workers while on location and that, where several men are working on one picture, no one man will have to take a very much longer time in getting his picture or be compelled to have more elbow room or crowd much closer to the subject than another man.

For some years now in most sections of the country the generally accepted "box" has been Eastman's Speed Graphic taking a

4 by 5 negative, manufactured by the Folmer Graflex Corporation. It is by no means the only camera in use, but it is the chief one. The other cameras used, except for a very few which serve the same purpose as the Graphic, may be considered as auxiliary tools, serving some special functions enough better than the all-purpose Graphic to warrant their inclusion in the equipment.

Invariably attached to the newsman's Graphic is the device known as the speed gun. This consists of two flashlight dry cells, a light-bulb socket, and a magnetic shutter release. It is so wired that touching its electric "trigger" trips the shutter and simultaneously burns the familiar photoflash bulb—the glass-enclosed aluminum foil and oxygen flash lamp. The shutter can be set for its maximum speed and still utilize most of the light from the flash. The photographer, in other words, is carrying with him a portable light source, one brilliant enough to stop action and illuminate objects 30 ft. or more distant.

Another type of flash synchronizer, also in fairly wide use, employs in lieu of an electromagnetic tripper a hand-wound spring device to set off the shutter purely mechanically by means of a cable release. This of course requires one extra manipulative action in preparing the camera for operation, but the mechanism then has no electrical parts to get out of order. Both types of flashlight are current. At present the newsmen probably are using more of the electromagnetic type.

Flash bulbs filled with wire rather than a thin foil have gained rapid and wide use since their introduction. Bulbs of both types can be had which burn with even illumination for a long fraction of a second. They thus may be synchronized with focal-plane shutters.

So if you consider the Speed Graphic with its speed gun as a working unit—which is precisely what they are now becoming, mechanically speaking—you have the beginnings of universal adaptability. The camera is independent of daylight.

The speed gun usually operates the ordinary between-the-lens shutter on the camera. There is another shutter on it, a slotted curtain traveling past the film surface—known as a focal-plane shutter—which allows exposures of $\frac{1}{1000}$ sec. There is not much action which the competent photographer cannot freeze onto his plate with this shutter speed. Also generally attached nowadays is a range finder, which allows rapid accurate focusing with the

film holder already in the camera and with the slide withdrawn ready to shoot.

The camera is all-purpose and not just an action recorder. The photographer can mount it on a tripod, replace the usual 5¼ in., *f*/4.5 Zeiss Tessar lens with a wide-angle or telephoto lens, raise the lens board to eliminate foreground, and obtain satisfactory architectural views. Or he can rack out the bellows to twice their normal length, focus sharply on the ground glass, and

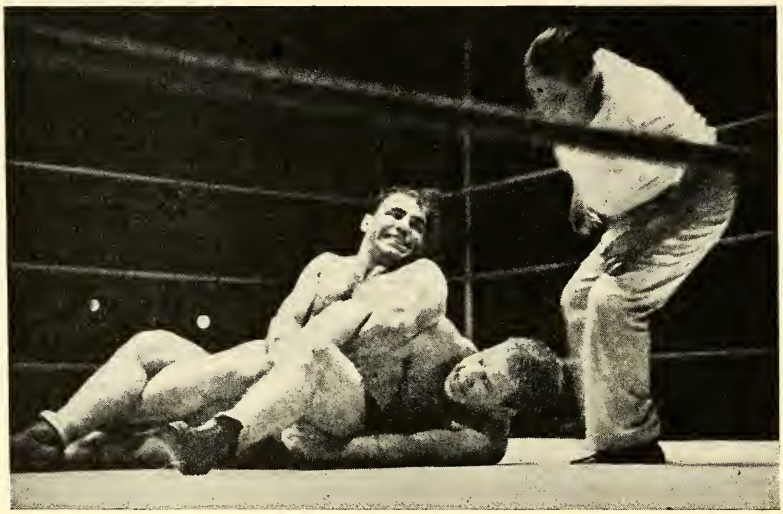


Photo by John Mills, Jr.

FIG. 11.—Rapidity of operation is the most important factor in any news camera. The subjects cannot be posed as for a studio portrait.

get copies of printed matter, or close-ups of bullets, or what you will.

So much for the adaptability of this camera; with a speed gun and flash bulbs, a tripod, an extra lens or two, and maybe a filter and lens hood, the photographer can photograph almost anything —not so well, perhaps, as if he used a specialized camera for each purpose, but he cannot take a carload of equipment on a news story!

However, adaptability is not the sole criterion. Rapidity of operation is almost the *sine qua non* of news work (Fig. 11). Undoubtedly there are other cameras than the Graphic better qualified for all-around work if speed were not so vital. The

modern miniatures with their endless accessories are versatile enough; so also are some of the folding metal cameras. None of them can be operated so quickly as the Graphic nor converted to different photographic functions as rapidly.

To return the first shot of an important news event to the darkroom is a simple matter when it only requires sending in the first plateholder exposed. The problem is not so simple when all the negatives are on a single strip of roll film. Anyone who has ever tried to set up and adjust the folding metal cameras, or even the contax, for that matter, in zero weather, waiting numbly for the action to break, finding his fingers too stiff to move, knows the advantage of the relative bulk and the cumbersome-looking levers on the Graphic cameras. Any camera which can be adjusted with mittens warrants respect, and the farther north, the more respect.

After operations in a pouring rainstorm a Graphic is a positive pleasure to dry in comparison to some of the more complex cameras, and in extreme cases salvage costs do not run so high! The Graphic is a tough camera. This can be appreciated after bouncing it on a pavement, when a little scotch tape and hope can generally be counted upon to keep it from falling apart before the assignment is completed.

Finally, as to compactness, it is not compact as we consider cameras today. But it is at present the most useful compromise between usability, ease of operation, and portability. The technical improvements introduced by the miniature cameras are having their effect upon the Graphic. Already a 3¼ by 4¼ and a 2¼ by 3¼ model Graphic with an attached range finder to obviate the old guess focusing is gaining recognition.

There is a limit, of course, to the smallness of the negative which news photography can use. Small size requires special care (which means more time) in developing; the scratches and dust which come with haste are ruinous. Especially in sport activities, use can often be made of only a small segment of a negative. A small section of a very small negative is not much use, and the alternative of long-focus lenses on the small camera is not always practicable because of the time involved in changing lenses.

Nevertheless, the time is not far distant when the news camera as we know it now will be outmoded much as are old radios with their auxiliary wave traps, loud-speakers, and exposed parts.

The coming news camera probably will have absorbed the speed gun and range finder into its mechanism, so that the camera will be an integral mechanical unit with all parts built in. The size will probably be somewhere between the 35-mm. miniature negatives and the 3¼ by 4¼ in. size, as small as possible to gain portability and depth of focus, without sacrificing ease of manipulation either in the camera or in the darkroom work.

There is no reason why someone could not, by devoting half as much designing ability as has already gone into the Leica and Contax cameras, produce a really well-built, sturdy, integrated news camera. The demand is certainly great, and the first manufacturer to capitalize on it with a product designed for and with the aid of news photographers should reap a small fortune.

Why should the speed flash necessarily stick out from the camera like a pawnshop sign? Why does a range finder have to be screwed on as an obvious afterthought? Range finders are now being screwed on inside the camera, which is a step in the right direction. In a few years range finders will be actually built in, or "designed" in, as it were. Why can not the lens board of the news camera be tough and rigid and still be movable for certain types of shots? Why can not lens hoods be fashioned which will not drop on the heads of spectators; surely manufacturers have heard of bayonet locks. Some have, specifically the makers of two well-known cameras which also allow filters to be easily clipped into the lock-on lens hood. Why is it not possible to simplify the photographer's focusing troubles by making a catch to allow the lens to click into a hyperfocal point, somewhat as is already done on the new rapid-sequence camera called the Robot!

Why does not some smart manufacturer canvass the opinion of alert news photographers, gather some words of advice, and build a really modern news camera? It can be done, and the photographers are crying for it. It can be done, too, without sacrificing rigidity, ease of operation, or adaptability. American manufacturers still have much to learn from the imported cameras and from motion-picture equipment, even allowing for price considerations. But there are signs of progress. Eastman has now introduced an "automatic" amateur camera. In a few years the manufacturers of this country may have caught up with the

demand and America may usurp the position of foreign manufacturers and make the best goods available anywhere. It is to be hoped that they will, and not alone because of import duties.

The Speed Graphic is good, but it is good only because we know nothing better now for that particular use. The modern miniature cameras have outstripped it and shown it up for what it is, a hangover from grandmother's day, with modern improvements tacked onto the sides like the excrescences adorning the airplane before it came of age. The Speed Graphic has many drawbacks, but it will not always be used in its present form, nor has it always been used. Folding metal cameras had their vogue, in the 4 by 6 size, as well as the ever-useful Graflex in the unwieldy 5 by 7 size. In fact until rather recently the Graflex (the reflected ground-glass image camera) was predominant in the Far West and Southwest, the reason being that the bright sunny weather seldom demanded flashlight equipment.

At this point the amateur cries: yes, we know what you said about the Speed Graphic, but *we* think the newsmen suffer from inertia, and why do they not go out and give the miniature a real try? It works for us; look at the pictures of the Hindenburg explosion!

Well, Mr. Amateur, you are right—a little. You could cover all stories with the miniature, but you would find yourself in an awful jam in the darkroom with a city editor clamoring for photographs. And on a nice hot day, if you did not process your 35-mm. film very carefully and it melted, melted just a little, that would be the end. You can do everything but boil a 4 by 5 negative and still save it—enough. The light has been turned on one during developing and it has come through the ordeal—a little dense, perhaps, but printable.

As we admitted, the smaller negative for the news camera is on its way, largely because of the miniature's influence. It will not be quite that small, and it will not have "arrived" until processing methods allow more leeway in operating, allow for more mistakes and haste. Right now the news photographer is availing himself of the miniature, but not exclusively so. It is not his only camera, although this may not necessarily be true of the feature man or of the chap who specializes on certain subjects. The amateur had one leg to stand on when he spoke of the news photographer's resistance to the miniature, his ridicule

of it, and his tardy acceptance of it even as an auxiliary instrument. Not all newsmen ridiculed it although they may have taken to it rather cautiously. That attitude should be comprehensible; the photographer's job depends upon his producing the picture, so he can be readily excused for adhering to the tried and true until he has seen the youngster's performance. To the amateurs a vote of thanks for their ground breaking!

To return to the subject of cameras: just where does the newspaper employ the miniature? Almost everywhere today. The camera is small enough so that it can be carried in the regular Graphic case with the plateholders and flash bulbs. The clearest way of explaining how and where the miniature is used is to describe its functions and then assume that the newsman uses it for what it is mechanically best suited. It has four chief claims to superiority over other cameras. Being small, it is relatively inconspicuous; it has extreme depth of focus (ability to keep objects not in the plane of focus fairly sharp); it offers a lens fast enough (admitting sufficient light) to allow instantaneous exposures in artificial light; the film and shutter can be reset simultaneously and very fast.

We need only to suggest the types of pictures for which this camera is uniquely qualified. The courtroom scene, where for one reason or another it becomes inexpedient to blow flash bulbs or flaunt a camera, is one type of picture. The electrically lighted hospital ward, in which flash bulbs are forbidden, suggests another use for this camera. Flash bulbs create a harsh, flat lighting; the ability to utilize ordinary lighting conditions lends naturalness. So the candid strip of the mayor performing his daily stint at his desk becomes fodder for the miniature. The effect produced is naturalness—nothing obtrusive like flash bulbs to unnerve the subject—and the shots are made one after another so that a sequence of action can be followed through and preserved for the reader. The miniature camera is suitable for stage photography, of course—the scene photographed from the flagpole, mast, or open airplane, where at least one arm does duty as a makeshift safety belt.

The examples could be continued indefinitely. The point to observe is simply that the good craftsman uses his tools for the purpose to which they are best suited. Think about the state-

ment on the unique qualities of the miniature and you will see why, for the present at least, the newsman is not using it exclusively.

In the last analysis it is the man and not the instrument which is important. Experienced men have performed tricks with their bulky 4 by 5 Speed Graphics—still are performing them—which out-candid the candid cameras. The tale of the demon golfer who turned in a good score when using a shovel, hoe, and rake contains a moral. The greatest sin perpetrated in the name of the miniatures is tacitly to insist that they alone are the candid cameras. They are not. There are no candid cameras. There are only candid pictures. To call the miniature a candid camera is to confuse a type of picture with some particular mechanism. For good candid pictures before the advent of the Leica, the reader is referred to the pictures made by Brady during the Civil War, with a view camera, wet plates, and a portable darkroom tent, or to those of Atgêt in Paris at the turn of the century, or to any file on the World War.

Only passing mention need be given the "view" camera. Newspapers employ it for architectural subjects, real estate work, portraits, and studio work. It is used on these jobs because it is the best camera for the work. A view camera has a ground glass, but no focusing scale, range finder, or view finder, and consequently must be operated on a tripod. But its two ends, the lens board and the ground glass, can be turned, twisted, and shifted into almost any relative position. Buildings which lean backward on the ground glass can be righted, very wide-angled lenses can be slipped on to get interior views, and the back of the camera can be swung to keep wall lines perpendicular. Long-focus lenses can be used to get large head images for portraits, and when the camera is all screwed into place it will not wobble.

Perhaps the most distinctive camera the larger newspapers use is the Graflex converted for sports pictures. To a 5 by 7 Graflex is fastened a long bed on which slides a blackened housing built out from the bellows; the front end of the contraption is either a large telephoto lens or a very long-focus one. The image of a distant object seen in the ground-glass hood by means of the reflecting mirror looks about the size it would to the naked eye. Since the lens has a focus length of from 20 in. to an occasional

40 in. and is large enough for speeds of $f/4.5$ or $f/6.3$, the camera will be a little unwieldy for ordinary photography. It is usually 2½ to 3 ft. long and may weight 60 lb.

For baseball pictures it is unexcelled. Pictures taken in the press box or on the sidelines, when enlarged, almost show more detail than could be detected by an observer at the same location. Not infrequently the camera will be perched atop a building cornice and trained on celebrities in a parade, or upon a wedding emerging from a church doorway. Occasionally it finds other uses, for example, in nature photography. Since the 28-in. lens alone for this rebuilt camera lists at about $570, the outfit is not worth the price unless good pictures of baseball or football are continually needed.

One other camera deserves mention because it is destined to effect the evolution of the news camera even more than the 35-mm. miniatures. The Rolleiflex is of the reflecting-image type but is more compact than most reflecting cameras, is quickly adaptable to either waist- or eye-level shooting, and has a rapid and efficient film-winding mechanism. One lens for the picture taking and another for the ground-glass image avoids resetting the mirror and the disappearance of the image just before exposure. Generally employing a negative about 2 in. square, it is bulkier than the Leica, but less so than the Speed Graphic. With a speed-gun attachment it now finds use as an excellent camera for feature work, and its design unquestionably will influence greatly the press camera of the future.

The complete coverage of night sports events demanded by the avid picture lookers until very recently was obtained almost entirely by means of the speed gun on the Graphic. Some large metropolitan papers had been using 6-in. $f/2.7$ or 2.9 lenses mounted on Graphics or on somewhat similar German cameras for this purpose. Obviously this degree of specialization was uneconomical for all but the larger papers, and further it was not always possible because only in the larger arenas was there bright enough light to allow exposures of $\frac{1}{300}$ sec. The Contax cameras found some use for this function, but again the slowness of negative processing was a serious drawback for the morning newspapers.

In 1937 a new film was introduced with a speed four times that of the then fast films. It is already resulting in the discarding of

the speed gun under many light conditions, including night sports, again coming a step closer to realism in photographs. The dramatic quality of the natural light in the ring or the hockey game becomes the source of illumination, and the picture gains immeasurably as an exciting and pictorially interesting document.

Little more need be said about lenses in this chapter. The universally standard 5¼ in. Zeiss Tessar is, in its speed class, absolutely unsurpassed for defining power and general excellence. Economy should never be practiced at this point. However, for the copying camera and the architectural cameras a much cheaper lens will do the job just as well. Speed is not essential for these two functions, and cheaper, slower speed anastigmats suffice. If a good used rapid rectilinear (non-anastigmatic) can be purchased at a bargain it should by all means be obtained, for if used stopped down it is an excellent lens.

Most lenses purchased from reliable dealers will vary in quality with the price. Used lenses are always worth buying from reliable dealers who will give trial and exchange privileges so the photographer can determine to his own satisfaction just how expensive a lens he believes necessary for each particular purpose.

Filters are not frequently used in news work; they slow down exposures and take time to clip on and take off. A light- or medium-yellow filter, which absorbs the violet end of the spectrum and records clouds well on the film, is a useful adjunct to any camera kit, especially for the general view, which will have a richer and more realistic quality when a correction filter is employed. Crowds, horse shows, beach scenes, snow scenes—all these are better pictures when taken with a filter. Light-yellow filters do not increase the exposures on panchromatic materials appreciably.

The architectural cameras and the copying cameras should be equipped with several filters. Red filters—and now the new polaroid filters which polarize light—will give startling black sky effects and, in the case of the polarizer, eliminate reflected glare from most nonmetallic surfaces.

Meeting Standards for Copy. Newsphotos are judged, as explained in Chapter III, on the basis of *content* and *copy*. By *copy* is meant all those qualities of the photograph which make it good or bad as a subject for reproduction. This section will deal with the news picture as *copy*.

It goes without saying that the news photographer, not working under controlled studio lights, seldom realizes perfection. Always his picture taking is conditioned by his realization that the end product is a halftone screen engraving of ink smeared on newsprint—not the beautiful "salon" print of the amateur—and he continually works to get, with the conditions in which he operates, the most suitable results for his medium.

Personality, news, and action—these are the underlying elements of *content.* And what are the elementary materials of copy? Not much . . . a scale of grays, from a light gray to a dark gray. Not even from a good pure white glossy paper to a shiny black ink. The halftone of the newspaper has, even in the so-called high lights, a slight dot formation, which grays down an already grayish paper. The blackest portion of the picture will have tiny holes or unprinted dots of paper showing through the ink, making the black much lighter in tone, or value, than a black on a good glossy paper.

So the newspaper photographer starts with a large handicap. He faces an aggravated form of the problem confronting every photographer (and artist). The problem is: to translate, with effectiveness and relative accuracy, the great range of light to dark—of luminosities—in the original subject into the greatly condensed range of tones offered by white paper and black pigment (Fig. 12). The bright clouds of a landscape can be represented by no brighter tone than the white of paper; the blackness of a cave cannot be depicted any blacker than the ink available. The range of tones is all bunched together, as it were, some of them getting merged with others or squeezed entirely out of the picture.

From visual training habits, our eye elongates the range of tones; in other words, we accept the convention of a short-tone range much as we accept the artist's line to indicate what in nature is not a line but an edge. We see only the short range of tones on the paper, but imagine it a much wider range like the original subject. Yet this range is more constricted in the newspaper. Cut from a newspaper photograph the lightest portion and the darkest. Compare them side by side with two sections taken from a good snapshot: the lesson is startling.

We said the eye accommodates to tonal differences, or imagines them greater than they are. That is true, but it is equally true

Photo by Harry Goodwin.

FIG. 12.—The whole range of luminosities, from the brightness of light to the blackness of night, must be compressed by the skilled cameraman into a short scale of values. This first successful night view of the Nation's Capitol was made from a blimp at an altitude of 1200 feet. The camera was a Leica; exposure $\frac{1}{10}$ of a second at f 1.5 on Agfa Ultra Speed Pan film.

that the arrangement, within the picture itself, of the various shades of gray has much to do with just how brilliant or luminous the picture appears to us. Have you ever seen in a rotogravure section a photograph of sunlight glistening on water at which you almost squint because it seems to be so bright? Yet the same scene differently lighted could be reproduced to look dull and grayish on the same paper and ink. The point is that the photograph can vary immensely, within its narrow tonal confines, in the degree of brilliance which it seems to your eye to possess.

Imagine a photograph constructed of a myriad of small patches of paper. The photographer has five boxes, each containing patches of a different shade of gray. The lightest are no lighter than the piece we cut from the newspaper, nor is the darkest any darker than the newsprint ink. He now makes a mosaic of these pieces to form a picture. He makes it a dull, lifeless gray or he makes it fairly sparkle with lights and shadows—whichever he will. These patches of gray are, in effect, the elements of copy, the building stones of the photograph. If the photographer knows the rules governing their arrangement he can suggest *any* degree of sunny lightness or impenetrable blackness.

There is no complete manual of rules. There are only a few underlying principles—principles which apparently have been found to exist by a process of trial and error. Originally they were probably stumbled on by painters; later somebody called them rules. The value of attempting to state them dogmatically, even a few of them, is questionable. They must be absorbed to be learned, unlearned to be used, and only in the actual taking of many photographs can they be well harnessed, and, when they are, the whole process is carried on without the aid of conscious thought.

Almost too obvious to mention is the semimechanical requisite of getting good contrast in the prints which go to the engraver. "Contrast" means brilliance; white whites, black blacks, very few intervening shades of gray, and plenty of black and white juxtaposed. Thus, a face used as a 1-column cut will be more recognizable if the lips, eyelashes, hair, and edge contour are all dark against the light skin; the same face engraved directly from an old cabinet photograph would lose in reproduction any defining characteristics because the tones are all bunched up into delicate

grays. The art department would have to apply a little lampblack judiciously.

Photomechanical reproduction methods are becoming better and better. The old admonition to the young photographer to get contrast and then more contrast grows less necessary each year. This does not mean that the photographer can expect the engraver to pull a good proof from a dull grayish print; the photographer must still deliver a "snappy" brilliant print. However, it does allow the photographer increasing leeway in his use of light in the picture. As reproduction approaches perfection, he can concentrate on getting the desired pictorial effect in his lighting and need not worry so much about black against white provided the print as a whole includes a full tone scale.

A given shade of gray assumes a relative value to the eye of lightness or darkness by virtue of the value of the tones which surround it. That is the key to the whole business of apparent tone values. A photograph, a painting, an etching, or just a group of blobs of color will seem to contain brilliant luminous whites if most of the area is relatively dark. Suppose a sunset scene when cut into little pieces and analyzed is found to have about one-fifth of its area the lightest shade of available gray, about two-fifths to have a rather dark gray, and the remainder the nearest to black obtainable. The sunlit clouds will appear exceedingly bright to the eye, whether the picture be on the motion-picture screen—which has a very long range of luminosities—or whether it is reproduced on a gray newspaper. The principle is an old one to painters; Rembrandt worked it superlatively.

A sort of obverse of this effect applies to "high-key" pictures, executed supposedly entirely in grays and whites. It is a difficult type of picture to reproduce in a newspaper for obvious reasons, although it can be accomplished successfully if run large. The grays and whites of the picture will appear lighter by contrast if even a very small amount of black is included. The minute quantity of black sets off the lighter tones and by contrast they gain a silvery quality, and for the same reason the whites—light grays on our picture—are applied sparingly; the high lights will then fairly glisten.

Variations on the fundamental principle of tones may be created by changes in the direction of the light source illuminating the subject. Here there are unlimited possibilities, not alone for

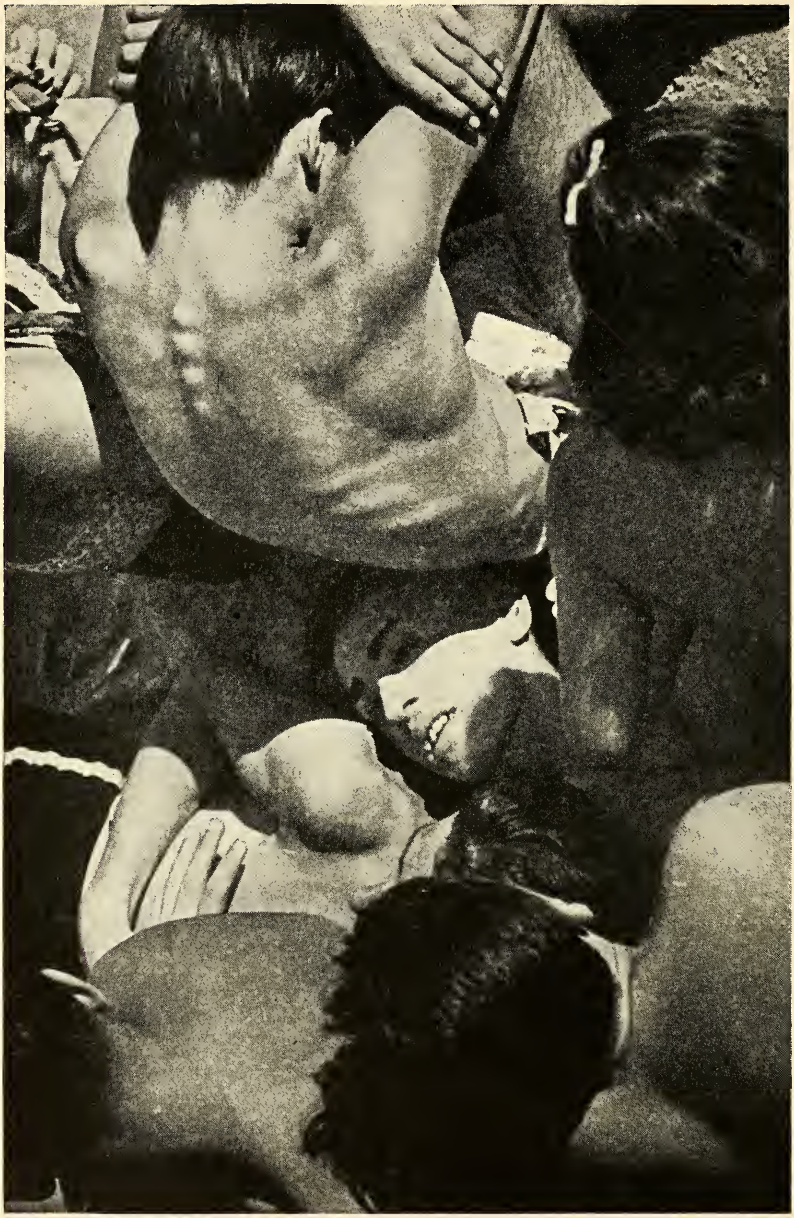


Photo by John Mills, Jr.

FIG. 13.—Lighting, the very essence of photographs, serves to convey mood and feeling.

emphasizing a particular mood, but also for adding contrast to aid reproduction.

Faces illuminated from below may look weird and dramatic. The familiar back lighting may contribute a feeling of sunniness. Occasionally lighting a face from both sides, high-lighting the edges, finds use. For lighting, being the very essence of photographs, not only serves to convey mood or feeling, but also serves to define the subject matter (Fig. 13). A light properly applied can emphasize the texture of a skin, narrow a too round face, give sparkle to a snow scene, or, under other conditions, cause it to look like a dirty gray blanket.

Seldom does the news cameraman have as much control over his lighting conditions as is implied in the last paragraphs. He could have control in the studio, but certainly not to any extent in the field. He cannot carry a battery of high-powered lights and reflectors along as Hollywood does, wait for the sun, and choose his background at will. When he does have a choice he must know precisely what effect he wants and work fast to obtain it. More and more he is achieving some measure of control in his light. Here are two cases in point. A group outdoors in the sunshine with the sun near the zenith may be photographed with a speed gun for facial illumination, using the sun as an effective back light. The result may be excellent from the standpoint both of the sparkle it gives the print and of the added contrast for the engraver. In recent years several news staffs have supplied their speed guns with a 10 or 15-ft. extension cord so that the light source need not be directly beside the camera but can be held high, or low, or to one side by a volunteer drafted for the moment. We gain interesting lighting in subjects which had heretofore always been done with the same monotonous flat illumination. Here again the freedom from the necessity of using the flat speed-gun lighting offered by the new high-speed film already mentioned is a substantial help to the news photographer in achieving dramatic and realistic effects.

Getting More Contrast

Before discussing darkroom methods we shall examine briefly the technical means which the photographer employs—aside from what choice he has in arranging his subject and light—to gain contrast in the print when it is lacking in the subject.

Not a week passes without a news photographer somewhere having to cover some outdoor activity when the sun is obscured—pictures at dusk, in the rain, on leaden winter days—even California does not spell immunity. Under certain conditions the range of tones in the actual subject matter may be less than the range of tones available on the paper; the scene may go from the white of a face to a middle gray, with no blacks. A football game on a drizzly day late in the afternoon—we hope the photographer does not have to cope with this particularly difficult situation—will result in a soft dull print if it is processed in the ordinary manner. The engraver wants more contrast than was in the subject, more than there is in a straight print, because his processing will further shorten the tonal scale.

There are but two things the photographer can manipulate to get his result; the negative and the print. Generally he gives both a workout. As a negative is developed the so-called latent image becomes visible (were we to watch it) until all the tones of the subject are present in approximately their true relationship. Long-continued development has the effect of stretching the tones even further apart, in other words, of making the dense portions even denser without materially changing the transparent portions. So the photographer "develops up" his negative as far as he knows it can be forced. If it is still going to print too gray, he "intensifies" it, which means further blackening by one method or another of the already dense portions. Sometimes he may deliberately underexpose his negative in the first place; it may help, though for a different reason. It is a risky procedure, for if he exposes *too* little, nothing can evoke an image where none exists!

To print this negative he uses a "contrast" paper. It will accentuate or stretch out the tones in the negative, tending to make very white the slightly dense areas of the negative and very black the thinner portions. Probably he used a "concentrated" developer which itself helps to produce a contrasty result.

Generally these expedients suffice. Any minor flaws will be remedied in the art department. But if the result is still unsatisfactory—say because of insufficient exposure—several expedients may be resorted to, although so seldom as not really to warrant mention. The print may be copied onto process film. The resulting negative may then be treated in the same way as the

original one. The final result is more likely to resemble a charcoal drawing or an etching than a photograph, but something is better than nothing if the subject rates 100 per cent. The more complex the process of manipulation the less value it has in the news darkroom because speed and its corollary simplicity must ever be the guides.

Once in a long while the opposite problem in contrast presents itself. A sunlit waterfall in a dark wood is a stock example. Here the lightest areas of the scene may be 50 or 500 times brighter than surrounding areas. If the photographer has succeeded in getting this long range of values all into his negative —assuming that he wants it all, for pictorially he seldom does—if he gets it all in, as he usually can, he will force it all into the print by "dodging" or "shading." This simply means allowing a little more exposure on those portions of the print which might otherwise stay too light—in this instance the waterfall. In making the enlargement he will cut off the light beam from all but the waterfall and give it a little longer exposure thereby. This is accomplished by holding the hands somewhere between the enlarger lens and the paper, in the path of the light image. One soon masters the knack of making hands and fingers block out—or outline—recalcitrant portions of the picture image. For shading minute areas, stencils may be quickly cut out and held in the light path.[1]

When he cannot preserve these relative values on the negative, there is no real alternative, provided he used a soft, noncontrast film, except to overexpose by far and give very short development. This will alter the relative values, but will provide detail in the shadows without allowing the waterfall area to get so dense that it loses the subtle tones within its own area. It is seldom necessary to have recourse to this trick, and that is just as well, for it seriously falsifies gradation and tends to produce prints which look gray and flat.

After this discussion, one might be led to think that the newsman must constantly worry about his range of tones, gradation, and whatnots. In practice, of course, he concentrates con-

[1] Dodging and shading, of course, are also resorted to in contact printing. Bits of paper, for example, are laid on the illuminated ground glass beneath the negative rest of regular contact printers, thus witholding light from the desired areas.

sciously only on his subject and the technical problems are so thoroughly ingrained that he adjusts his camera almost by second nature.

A. APPLICATION EXERCISES

1. Clip from a recent newspaper or picture magazine two or more pictures which probably were taken under conditions which made a camera of rapid operation and virtual indestructibility highly advisable. Explain the probable conditions.

2. Clip and mount five or more recent news pictures which suggest the reason why adaptability to any picture-taking situation and portability are necessary for a newspaper camera of general use. Explain the probable conditions which justify your selections.

3. Clip from a recent newspaper or magazine a picture in which tone contrast is less marked than desirable. Clip one which shows excellent attention to tone contrast in a situation where lack of contrast might easily have resulted from inexpert photography. Write brief explanations.

4. Clip recent news pictures in which the spot nature or other conditions indicate that the picture could have been returned to the office and a cut made of it much more in keeping with the probable newspaper conditions if taken with a Speed Graphic than with a miniature. Justify your selections.

5. Clip recent news pictures which could have been taken quite satisfactorily with a miniature. Explain why.

For those having cameras:

6. Assume that a university student in your town has just received notice that he has won a $1000 prize for a short story written around an illustration published by a national magazine. Get a friend to pose for an interior shot of this hypothetical prize winner working on a story in his room. Watch lighting effects, action of facial expression, and news content. Rate the picture for both content and copy.

7. Take a picture of a small group, using bright sunlight for back lighting, a speed gun or separate flash bulb for face lighting.

8. Select the most interesting landmark in your town. Take a picture suitable for newspapers, getting action effect with a reasonable angle shot, watching tone contrast, and including, if practicable, living figures. Write a 20–30 unit overline and a 40–60 word underline. Rate the picture for both content and copy.

9. With the fastest film obtainable in your town, get an action shot of indoor sport or performance—hockey, skating, basketball, night baseball, symphony or chorus leader in action, boxing, aesthetic dancing, etc. Strive for dramatic quality of natural light and for realism along with action and news interest. Rate the picture for both copy and content.

10. Attend a public auction, a class lecture by a colorful teacher whose personality has news interest, a stage performance in which there is unusual dramatic action, or (with permission) the place of business of a prominent person. Take at least eight action shots for a picture sequence. Take these close enough to get dramatic facial effect with fast film and lens.

Select at least three of the resulting prints, mount them for a news sequence. Write a 40–60 unit overline and a 100–150 word underline. Rate the sequence for both copy and content.

B. CHAPTER-ORGANIZING QUESTIONS

1. Suppose the municipal building in your town has started to burn, dangerously close to the picture deadline for the main edition of the paper on which you are employed as staff photographer. An outer wall starts falling with several firemen near it, one or more of whom will almost certainly be badly injured or killed. You have a motorcycle messenger with you. Would you prefer a Speed Graphic for this assignment or a 36-exposure roll-film small camera with a fast lens? Justify your answer.

2. Outline hypothetical situations which make four features important for a satisfactory news camera for general assignment work.

3. Suppose you were covering the scene of a sensational murder. Empty cartridge shells found at the scene and similar shells in a room across the hall are available, and a scrawled note in the victim's hand, which suggests a motive. The murdered man was an architect who drew the plans for the palatial country home in which he was killed while a guest. The façade of the house, showing a balcony from which police believe the murderer entered and departed, is an adaptation of an historic European palace to which the note clutched by the victim vaguely refers. What pictures would you take on this assignment? Could one camera be used for all of them? If not, why not? If so, how?

4. Assume you have been assigned as staff photographer to cover an important football game. Explain by hypothetical scrimmage scenes why you would prefer not to do this with only a miniature camera. What darkroom difficulties which might be encountered with 35-mm. film would not fit into the practical demands of a newspaper office?

5. If a camera designer from a large manufacturer were to interview you for ideas as to how to improve newspaper cameras, what specific points would you suggest?

6. Suppose you are assigned to photograph a new municipal auditorium which is to be dedicated in a few weeks. The architectural plans were selected by international competition, and exteriors and interiors both are unusual. You have induced the architect, a foreigner, in town for the day, to be present. He has a striking, deeply lined face. You wish to get a close-up portrait of him. What sort of camera would you take along? What particular advantages would this camera possess?

7. What are the particular characteristics of the Rolleiflex? What limitations keep the Rolleiflex from having entirely replaced the Speed Graphic? For what particular kind of news photography is the Rolleiflex especially adapted?

8. What is the best standard lens for defining power and general excellence? Would you ever buy for newspaper use second-hand lenses? What kind of news pictures particularly call for what kind of filter? Why are filters not frequently used in news work?

9. What paper and ink limitations does newspaper reproduction present for obtaining contrast? A halftone reproduction recently made from a halftone printed in a magazine in 1894 resulted on enamel stock in a much brighter, clearer picture than the original halftone in the magazine. How could this be?

10. How is it possible to get more contrast into a newspaper reproduction from an old cabinet photograph than there is in the photograph itself? What is the purpose of occasional back lighting, or lighting a face from both sides, or high-lighting the edges? What principle of tone value does this illustrate?

Chapter VI

THE STUDIO AND DARKROOM

PREVIEW QUERIES

After the manner of a motorcar assembly line, a picture should methodically enter a darkroom as film in a holder and come out an enlarged dry print. For what nine procedures in this chain should a newspaper darkroom (or rooms) be equipped?

How may one guard against losses from variation in the temperature of water and air in a darkroom?

If speed demands that a negative be enlarged while still wet (as it usually does), what advantage has a horizontal enlarger over a vertical one? What advantages has the vertical enlarger?

What is the most commonly used developer in newspaper practice? For rotogravure prints or advertising pictures, where better detail or finer gradation is wanted, what developer is often used? What is the solution known as F-5?

If you wish to develop fast panchromatic films in a bright enough light to see your way around, how may you prevent "fogging"?

If your negative on a hot day shows signs of wilting, how can you stiffen it up?

Suppose you have an excellent picture on an overexposed or overdeveloped negative, or an excellent news shot on a thin negative with too little density. Is there anything you can do about it?

Which is better for news photography—glass plates, or cut film in holders? Why?

Suppose a reporter brings in a borrowed group photograph which needs extensive retouching. The picture must be returned to the owner unmarred. All the city editor wants is one figure enlarged. How can the newspaper get a suitable engraving?

THE newspaper darkroom must have facilities for mixing photographic chemicals; developing and washing film; rapid drying of films; printing and enlarging from negatives, dry or wet; developing and washing prints; rapid drying of prints. The studio should be equipped to make portraits, still-life shots, or small groups; copy photography or drawings.

Reduced to its simplest and most inexpensive form, a plant capable of handling these requirements need consist only of a darkened closet with developing trays and tanks, a homemade

enlarging machine, a sink near by, an electric fan, perhaps, with an attached heater coil, film developing hangars, bottles for chemicals, and a few judiciously selected odds and ends. Such equipment might serve the small paper with one or two photographers. The equipment of the large metropolitan paper may run into thousands of dollars, although it still serves the same function.

The first and most useful additional expenditure is to allot separate working space for each different function. A chemical-mixing room should be the first function to claim separate space. Too many chemicals floating in the air—and they will, with the very greatest of ease—never promoted spotless negatives. A separate laboratory for film loading and developing should be provided, one to each man where possible. Each operator then assumes individual responsibility for keeping his developer up to strength, and the accidentally turned-on light in the developing room happens less frequently. A man is less likely to go out on a job with empty film holders he thought were loaded.

One or more darkrooms should be provided for enlarging and printing. Semi-automatic print driers demand another few feet of minimum floor space. They will dry and give a high gloss to prints, in about 2 min. Handy little gadgets! A film-drying cabinet will keep dirt and dust off damp films as well as dry them quickly. The arrangement of the various darkrooms should be planned so that, just as on the automobile assembly line, work in process may go through the mill from one stage to the next with a minimum of footsteps. The film holder should go in at one end, so to speak, and a dry print come out at the other.

Certain refinements suggest themselves which are luxury in a sense, but cannot be called useless investments; white tile walls which do not fog films but allow the operator to move about unerringly; built-in safelights and switches; automatic water-temperature controls; foot-pedal or knee-operated water outlets; air conditioning (a boon in hot weather, excellent cleanliness insurance, and a virtual necessity for color photography); any improvements of this type which the financial department will install are worth their price, to the photographers at least, in "streamlining" the work.

Now for some details. Darkrooms usually are equipped with sliding doors, making for compactness. The individual film-

developing rooms, scarcely larger than a closet, contain a shelf for loading film holders and a sink with running water. The sink is generally of thick cypress wood, the most all-around efficient material for the price; it lasts indefinitely, acid will not ruin it, and it is lighter than slate. Developing tanks (usually of rubber) rest in the sink or on a duckboard across it. Racks or hangars for holding the developing film hang above the loading shelf. A darkroom safelight may hang from a cord or rest on a shelf. Ordinarily the films are washed in this same sink.

The enlarging room, always the scene of frantic activity as deadlines approach, should be large enough to allow at least two photographers to fall over each other. A last-minute job finds one man printing, another at the sink, with maybe a city editor hanging desperately over the developing tray clamoring for speed while mentally cropping and captioning the print "cooking" in the "soup." A large sink with a duckboard supports the trays, and under it prints wash, a hose running into the sink and a short standpipe draining the water. A pendant safelight over the developing tray is a necessity. Another one helps, an indirect light playing on the ceiling and illuminating the entire room. The table or shelf on which the enlarger is mounted should have near at hand space for printing paper stock. This may be small cabinets with doors from which the paper is pulled and the door sprung shut. Usually, however, there are just the boxes of paper lying on the table. A foot treadle for the enlarging light gives the operator full use of both hands for dodging, and most news prints require some dodging.

Enlargers may be divided into two types, horizontal and vertical. A horizontal enlarger is oriented as a camera normally would be, the projected image being on a vertical plane. The print size is changed by sliding the easel with the paper on it along a track or shelf toward or away from the lens of the camera. The vertical enlarger (Fig. 14) projects the image upon a horizontal table surface. As between the two there is little to choose for ordinary work. The space available, as well as personal preference, may dictate the type. However, an adequate horizontal machine can be constructed for less than a vertical one. Most news negatives must be printed while still wet, and unless properly held in a clip a wet negative sags more when lying flat than when standing vertically. Again, since heat can destroy a wet negative

in a very few seconds, a cool light source in the enlarger is a good safeguard. Many large plants employ the mercury vapor light, which burns "cold" and is intensely actinic.[1] Enlargers equipped with automatic focusing cams save time. A fast lens, with good defining power, is an asset. The last place in the darkroom to

Photo by Harold Rhodenbaugh.

FIG. 14.—The vertical enlarger projects the picture upon a horizontal table surface. Space available may determine whether this or the horizontal enlarger is used.

save money is on the enlarger; one which is slightly out of kilter (off alignment) is worse than useless and a constant irritation.

One of the most consistent darkroom troublemakers is varying water temperature (few plants boast automatic air- or water-temperature control). In the winter water may be so cold that

[1] The new fluorescent mazda lamps may supersede the mercury vapor lamps. These new lamps emit a truly white light (6500° Kelvin) and are about as cool in operation as the mercury.

development cannot procede; and in the summer the emulsion slips off its gelatin support with very little provocation. In northern states the water from underground is usually not dangerously hot (say more than about 75°F.). The developing tanks are then left *in* the sinks with the water running around them; this makes a water jacket which prevents the solutions from rising to air temperature. Going south from Washington, D.C., the ground water is often too hot to use. The alternative of course is ice. Ice is awkward because the temperature is difficult to keep at all constant. So-called tropical processing methods may be resorted to in an emergency, but generally some cooling device is preferable. In cold weather solutions are kept in the air and heated occasionally by an electric immersion heater if they get chilled.

Newspaper photographers, like their photographic brethren, do not all use exactly the same formulas, films, papers. Each plant will standardize on some one set of formulas and products, albeit in 6 months some of the "standardized" products will have been replaced by something newer. Someone, on a large staff, is always testing out a new speed gun, a new formula, a new kink of some sort. Manufacturers' representatives bring in samples of new products. In fact, if any large staff were to change none of its procedures it would suffer at the hands of rivals in two years' time, so rapid are the technical advances. Some of the advances, of course, are more fancied than real, but nevertheless the newspaper must from time to time try out new products and formulas. (This is almost as true of equipment, although the financial problem enters here.) For these reasons it is useless here to go into extreme detail about the formulas and materials employed by papers. Only those will be mentioned which are in general use.

Because the simplest procedure, though not necessarily the best, is usually the quickest, newspaper darkrooms standardize on as few products and formulas as they can coax into achieving the requisite results. It must be reiterated here that good results on the newspaper are measured in terms of the end product, the photoengraving, not in terms of beautiful salon prints. Many a good amateur, floundering in a maze of complex formulas and never-ending gadgets, stands dumfounded when he first sees the rough-and-tumble forthright procedure of the average news

darkroom. He cannot feel that such blunt simplicity gets results. Perhaps it does not—the results he is striving for. But it serves its purpose, and the news photographers, though they periodically damn their equipment, also swear by it.

Every photographer knows D-72. It is a time-honored developing formula containing two chemical reducing agents, metol (elon, to Eastman Kodak, just to be different) and hydroquinone. The pair make a versatile developer, so versatile that on most newspapers this developer, known to the amateur as a print developer, becomes the universal solvent. It is around everywhere. It gets in your eyes and hair. Concentrated, which tends to produce contrasty results, it develops the gray-day sports negatives; diluted about 1 to 3 it develops most of the remaining negatives. Again concentrated it develops the prints of the sports negatives; diluted 1 to 4 and possibly primed with a dash of potassium bromide it makes an occasional exhibition print.

It is not a fine-grain developer, but you would never realize it when looking at the published photograph which was a ten-diameter "blowup." Newspapers occasionally keep stock solutions of special developers for unusual circumstances. Various standard formulas, published by Eastman and others, are available for the maximum-contrast developers, useful, for example, during the football season, when much gray-weather sport shooting must be done. Then a semifine-grain formula, such as D-76 is often used where better detail or finer gradation is wanted, for example in the rotogravure section or on the real estate or advertising pictures. Unless a newspaper runs through a great number of Leica or Contax films it is generally not worth the time or space to use other than ready-mixed developers for extreme fine-grain work.

Hypo—sodium thiosulphate to you—the solution which removes the undeveloped portion of the emulsion so that the film cannot go black, used to be made into solution alike for film and for paper. That is no longer true, owing to improvements in the formula for film use. Eastman calls it F-5. It contains a little boric acid, and there is no photographer who is not (or should not be) using it today.

Not much time is ordinarily available in the newspaper's rapid production schedule for fancy or complicated darkroom practices.

We need only mention desensitizing as a type of aid which, however, is seldom employed. Such an aid is useful at times—times when there is plenty of time. Desensitizing allows development of fast panchromatic films to be carried on in a bright yellow light, thus giving further control over individual negatives. Hypersensitizing with mercury to increase film speed has been used, as an occasional darkroom practice, although tentative tests tend to show that mercury hypersensitizing does not increase the speed of the very fastest films enough to warrant its use.

A few other points are worth mentioning. A little formaldehyde or potassium chrome alum will stiffen up a negative which shows signs of wilting on a hot day. Sometimes an alcohol-and-water solution serves as a rinse to hasten drying. A negative reducer—to thin down an overexposed or overdeveloped negative—usually consists of a handful of potassium ferricyanide and another of hypo in about a glass of water. This quick method of reducing negatives is frequently resorted to, as is also intensification, for building up density in thin negatives. Intensifier is most easily bought in ready-to-mix tubes and used only once.

How accurate must one be in the darkroom? Of course you are no more accurate than you must be when the deadline pushes your pulse; but how accurate must you be? Generally speaking it is wise to keep chemical quantities within about 10 per cent of the amounts specified. It is most important to do this with developers in order to insure consistent results and avoid catastrophes. Anyhow, developers can be mixed quietly in advance of deadlines! One reason for using ready-mixed chemicals for intensification and the like is that it precludes any serious errors at crucial stages. And, of course, in handling prints less discretion need be taken since another print is easier to make than another negative!

The student should know something about the films and papers which the newspaper uses. An empirical statement is not much help; almost every conceivable brand is used at one time or another by at least a few plants. The best method is to know the qualifications required of the supplies for their job. In the first place let it be mentioned that, whereas glass plates were once universally used by the news fraternity, they are at present

almost entirely superseded by "cut film," an emulsion coated on a heavy celluloid base, loaded individually into film holders or adapted plate holders, and handled while wet in metal racks which suspend the film in the developing tanks. Film is less bulky than plates, weighs less, and does not break.

The panchromatic emulsion—sensitive to red—is now universally adopted by advanced papers and news services. The convert to panchromatic materials had to learn to handle his material either in total darkness, instead of with the familiar red safelight, or with a green light too dim to be of much help. He can, of course, desensitize the film just before or during the initial stages of development and develop in a yellow printing paper light.

Panchromatic emulsions were not widely used until recent years, but with improvements in the exposure latitude and in the speed of the emulsions, and possibly with the photographer's greater familiarity with the material, there came a wider use of it on newspapers. Ultimately of course it will be the only film used outside the studio or copying camera. Since mazda light emits a higher proportion of red rays than does ordinary sunlight, panchromatic films are indispensable for stage or indoor candid photography. The newest panchromatic films are superior to *any* former films in speed, brilliance, exposure latitude, and fineness of grain. They live up to their claims.

As between the film products of the several largest film manufacturers, there is probably little to choose. At any one time, one manufacturer may have the ascendancy in having the fastest film, but he would not be able to hold such an advantage for many months. The films of each will be reasonably consistent from batch to batch (there are always unavoidable variations in each batch of emulsion cooked up), and always reliable. The question is a matter of personal choice.

In discussing the merits and qualifications of films, we have practically answered the matter of paper selection. The same tale holds true regarding the various products of the manufacturers and, barring exhaustive laboratory test, the selection will depend upon personal predilection and last, but far from least, upon cost. Obviously it may be found that some papers do not measure up to specific requirements, although usually each manufacturer does have some suitable paper. Some papers, in

hot weather, cannot withstand rough handling or, more accurately, the consequences of too rapid fixation and drying on a hot belt dryer. Some may not seem to produce good rich blacks except upon prolonged development, which will eliminate them from the hurried darkroom.

Darkrooms equipped with the powerful mercury vapor enlarging lights can afford to make enlargements with the slower chloride contact printing papers. Contact papers are not frequently used today although they have some advantages: more rapid developing, cheaper cost, and one more grade of contrast available than the four obtainable on the fast bromide enlarging papers.

A word must be said about copying. Every tenth print, more or less, which is used in the paper will be a photographic copy of another print, drawing, book reproduction, or what-have-you. It may be recopied by the photo department for various reasons: the original must be returned intact to the owner; the original is in a book which is awkward for the engraver to handle in his camera; much retouching is necessary which for any of the above reasons is inadvisable upon the original; the size is wrong, either for the engraver who may need one small head enlarged ten times from a group photograph, or for the art department which may want a print to fit exactly into a pastedown layout. The last two reasons account for most of the copies.

In a large plant the net result is lots of copies. Facilities must be reserved for this phase of the work and set to operate with a minimum of operations. A copying camera is erected. It is generally a view camera mounted at a convenient height on a track which runs on a table or wall shelf. An easel supports the material to be copied. It may be only a board with thumbtacks, or it may be a glass-enclosed frame built to hold books, atlases, or worse. It need not approach the engraving camera in cost, accuracy, or complexity, although the general construction features might well be similar.

You can make a copy with almost any film—or with paper instead of film in a pinch (if you happen to have a reflecting enlarger around the house with which to print from paper negatives)—if the limitations of the material are known and it is handled accordingly. Ordinarily, special-process or "commercial" films (not quite so contrasty as process, but color-blind)

are used since they give brilliant results and can be easily handled under a red safelight. A fast panchromatic film would have to be developed a longer time than these films to gain equal contrast or gamma.

Exposures for copying may be standardized, since the lights remain constant. It must be remembered however, when determining copying exposures, that an object which is photographed close to the camera requires longer exposures because the bellows must be further elongated, with the result that the lens aperture becomes relatively smaller than before. For example, an object copied to same size on the film will require an exposure exactly four times that which would ordinarily be required. Tables have been made for these data, although they are not particularly necessary in the newspaper plant and, anyhow, can be figured out from the data on lens openings, bellows extensions, and distance from object to lens.

A. APPLICATION EXERCISES

1. Assume that your paper in a town of 150,000 decides to get into the march of news photography; you, a reporter with camera experience, have been assigned to plan a darkroom; two news cameramen and a darkroom apprentice will constitute the picture staff; a 10-foot square space in the room to be devoted to engraving can be spared. Draw a floor plan showing what equipment you would recommend on an economical basis and how you would locate it for efficient use.

2. Assume that after a year of successful picture experimentation your publisher tells you he will hire a third photographer and allow you a reasonable increase in darkroom space. Indicate by floor plan or plans what you would do.

3. Take at least three gray-day negatives. Develop these with the proper concentration of D-72.

4. Select what you consider an example of the best architecture in your city. Make three pictures of it for assumed use in a real estate section of a daily newspaper. Develop these prints yourself with a ready-mixed developer suitable for getting good detail and gradation. Mount the best print you get and explain what developer you used.

B. CHAPTER-ORGANIZING QUESTIONS

1. What darkroom arrangements and equipment would you recommend to a publisher to secure speed in printing and to avoid dirt and dust on film?

2. What kind of darkroom entrance will conserve space? What type of water outlets in a darkroom are advisable? Of what material should the darkroom sink be constructed and why?

3. Suppose your homemade enlarger has been resulting in the destruction of wet negatives because of heat. What change would you make?

4. If your darkroom practice requires a good deal of intensification, which would you prefer, ready-mixed chemicals or those which you mixed yourself?

5. What characteristic of panchromatic films makes certain precautionary measures in developing them necessary? What advantages do the newest panchromatic films have over former types?

6. Suppose a monument is to be erected in your city by the state historical society for an Indian chief whose effective friendliness to white settlers made the establishment of your city possible a generation earlier than otherwise would have been likely. Your city editor wants a 3-column cut of this Indian. The only picture available is a group halftone in a rare volume in the city library. The halftone, on a semi-enamel page of usual book size, shows the Indian quite clearly as one of twelve Indians photographed at a powwow. Others in the group are unidentified and unimportant. Explain how you would get a satisfactory print for a 3-column cut of this Indian.

Chapter VII

COVERING PICTURE ASSIGNMENTS

PREVIEW QUERIES

Why, in general, would one expect a certain type of "great" news picture to come from amateur sources, and another type from professional news photographers? How would you classify, or distinguish between the two types?

Do news photographers often expose only a single sheet of film while out on assignment? Can you suggest a type of assignment on which they might shoot but one negative?

In what ways is the photographic greenhorn's task made easier when he works on an assignment with several other men? In what ways may his task seem to him more difficult under the same conditions?

Are there any reasonably satisfactory substitutes for a real apprenticeship for the amateur who wishes to become professionally capable, qualified?

Suggest two or three methods by which news photographers obtain ideas for "new and different" pictures.

MANY of the greatest news pictures were made by amateurs. The picture of the sinking of the "Vestris," for example, was a famous amateur document of a catastrophic event. The reason, of course, is that a news photographer cannot be assigned to a calamity in advance of the occurrence. Occasionally, as in the case of the Hindenburg explosion, the professional cameraman has been assigned to the "routine" news coverage, and so happens to be on hand when the unexpected happens. And the professional's conduct in the face of an emergency holds lessons for the amateur.

The Hindenburg explosion photograph shown in the frontispiece of this book was taken by Charles Hoff, staff photographer of *The Daily News,* New York. It won first prize in the spot-news class of New York's Press Photographers' show of members' work. In *The Daily News* of May 7, 1937, Hoff told the story of getting this picture as follows:

We saw them throwing out the ropes and knew they were getting ready to moor the ship. It was glistening up against the dark sky, and some one near me said: "Do you know that a ship like that picks up seven tons of water in the rain?"

A smart guy, I thought. Bob was nearby. I was practically underneath the mooring mast and I was shooting pictures every minute when, —Bam!—it went up.

Bob was down the line further, near where the Zep started to fall. I was still shooting pictures. So was Bob. There it went. An explosion like a hollow boom, maybe like an explosion of a firecracker in a monstrous empty can. We saw the flames lick out from near the tail, at a spot about a quarter of the way down from the rear.

It started down. Tail first. Then another explosion. This one was in the middle of the ship and the Hindenburg went up like a large ball of cotton waste dipped in flame.

It wasn't coming down fast. It looked more as if floating, drifting down like a fantastic burntout rocket shot up on the Fourth of July.

It started doubling up as it fell. I didn't think of the people on it as I watched. I didn't think of the beautiful thing I had looked at a minute before. I only tried to keep my hands from trembling as I slipped the plates in.

Sometimes the professional cameraman is on hand to photograph calamities. But often it is a fast-thinking amateur who takes the only shots ever taken.

Of course, the amateur photograph of a news event is generally inferior to that taken by the professional photographer. That is a reasonable assumption: the news photographer practices his craft day in and day out; the amateur is relaxing occasionally with his hobby. However, it is pertinent for the student to inquire into the techniques and approaches employed by the newsman to present the recorded scene in its most forceful and storytelling manner, to extract the utmost meaning from a given scene.

How does the professional go about actually getting his picture? How does he think through an assignment; what does he actually do on the job, and why? These questions are not asked with equipment in mind, but in relation to the thoughts and techniques of the photographer on the job. We know what cameras he uses, and why he uses those he does; the problem now is to understand his method of evaluating in photographic terms the subject he must illustrate. By way of introduction we may first mention

these points. The newspaper photographer, like the craftsman, draws heavily upon experience. This experience is a combination of various factors: of learned motor reflexes; of habits of response; of manipulative skill; of penetrating observation—this last is a "must"; and of good old common sense. The degree to which each of these factors enters into the making of a picture varies of course with the photographer and with the occasion. Before elaborating further, one or two hypothetical assignments may be followed through, and from these we may derive as we go along a concept of the news photographer's basic approach and of what theories govern his selection and arrangement of picture material.

An Elementary Assignment

Take first a simple assignment: a college lays a cornerstone. The city editor sends the cameraman out to the scene, instructing him only to "cover" it. If the photographer arrives late his camera will be open and adjusted, ready to shoot. If he is early, he will survey the scene, gravitating toward the press agent, or, if one is lacking, to the dais with its bigwigs. More often than not this type of event has its ubiquitous press representative alert for the newsmen. This makes life simpler, for the representative will know whom to photograph and will make the arrangements for posing. Nothing then remains for the cameraman except to await his time; although he may unobtrusively busy himself with candid shots of speakers or prominent (or picturesque) spectators (Fig. 15).

If there is no press agent, the cameraman sidles quietly up to the center of activities and asks someone who appears authoritative but who is not at the moment engrossed, about the seating arrangement, who the important figures are, and other essential details he needs in order not to miss any important person or subject. If the photographer was too late for anything but just the picture his captions would be written later, sometimes not until the prints reached the city editor, who would, with the help of the photographer and others if necessary, fill in the names. Needless to say this practice is frowned on in the best circles. Having worked his way into a good position, the cameraman makes himself inconspicuous and awaits the crux of the program.

Now events of this nature, if they are used at all by the paper, ordinarily do not warrant more than one picture. In this case

the storytelling picture, the gist of the whole affair, is the actual physical act of laying the cornerstone. So the photographer skips the speeches—except as mentioned above—and only cocks his gun when he senses action. He wants only one picture; he

Photo by John Mills, Jr.

FIG. 15.—The picturesque speaker or spectator is the news cameraman's natural quarry when he is covering an important event. Here Professor Albert Bushnell Hart was caught by reporters and photographer too.

may take only one. But if film is not running low he takes no chances—negatives have been lost, film spoiled, developers exhausted. He takes a picture as the action gets under way. He takes another for insurance. Then he may change his location to obtain a different viewpoint. If he was down low in front of a platform, he may search a chair, a mound, a building, and

shoot again from an elevation. The light may be varying; he shoots again to allow for this.

The portion of a program of this nature which is of interest to the news photographer will have gone from start to completion in as little time as it would take the old-fashioned amateur (the one who did not have a range finder and speed gadgets) to focus his camera and expose one film, yet in that time our newsman will have half a dozen exposed plates under his belt. How did he work so fast? Perhaps you do not think he did; and not all professionals do, although most of them must work rapidly if they are to survive as newsmen. If you do not think he is fast try, if you are an amateur, to duplicate his performance and you will know.

He works fast for several reasons, two of them perfectly obvious. His is the experience of the man who repeats daily a series of operations which differ from occasion to occasion but are made up of the same mechanical actions. He uses equipment built for speed. His mental approach is conducive to speed; through experience he has acquired mental work habits which exclude from the forefront of his consciousness all but a pantomimic impression of the action in which he is interested. In other words, he is concentrating, somewhat as a cat would upon its prey, though in this case the sadistic element presumably would not enter the analogy—it might, of course, were the photographer stalking an unwilling subject! Although his thoughts are monopolized by this one center of activity, he has saved a corner of his eye for anything which may occur beyond the field of action, just as the cat probably reserves a measure of watchfulness for possible enemies.

What the cameraman is watching through his finder is not President So-and-so laying the cornerstone for Such-and-such building. Those data have been registered in his mind and are, in a sense, forgotten. He now sees this pantomime which his eye, were he to analyze the matter, follows like some remote and detached activity on the planet Mars. To him it is no longer a cornerstone laying, it is merely a sequence of action from which he will freeze static impressions. In other words, that part of his conscious mind which is following the action is not thinking: yes, this is a cornerstone, now they are laying it, and now I must shoot. That thought sequence came earlier and has been sub-

Photo by Arthur Ellis.

FIG. 16.—The news photographer has learned motor responses that function faster than his conscious thought. That helps to explain this amazing picture of lightning striking the Washington Monument. Weather pictures are always news.

merged so that as the cornerstone laying progresses he does not have to stop and think, this I must shoot; he just shoots, without thinking how or why! If he were suddenly interrupted and asked why he was shooting at that particular moment he probably could not answer the question. As the actions unfold he knows instinctively—that is, without benefit of a complex train of logic—when to expose the film. In fact, he anticipates, so that at the correct moment his hand has squeezed the trigger without having received conscious orders to do so.

Perhaps it is only necessary to say that the photographer is functioning rather like the automobile driver or airplane pilot. The pilot is continually called upon to meet new situations where his unconscious reactions—his learned motor responses, if you will—meet the problem more quickly than could conscious thought (Fig. 16). For although the problems may be new, they are composed of familiar elements in a new arrangement, and this arrangement will be competently dealt with before the conscious mind has begun to study the problem.

Frequently in an assignment of the type exemplified by a cornerstone laying, the news photographer's task is rendered a little different by virtue of the fact that those laying the cornerstone so desire publicity that they will reenact the scene for the photographer, in other words, pose for him. His problem is then simplified, it being only necessary to pose the important personages closely grouped around the cornerstone. It is hoped that in shooting this kind of scene the cameraman may be able to avoid too posed and stiff an appearance; if he cannot direct the men to act naturally, the illustration suffers. There is less excuse for insisting on the stodgy posed picture reminiscent of the earliest days of news photography. Aim first to get the scene-as-it-actually-happened; then, if the subjects wish it, or the photographer is not positive he has good material for the city desk, pose the scene and retake it for the benefit of posterity, closely simulating the actual event.

When the photographer completes his pictures and has full captions, he returns to the office (or calls in, if he is bound elsewhere). From the developed negatives he will discard those with movement or poor exposure or those in which Mr. So-and-so cannot be seen behind Mr. Nobody. The remainder may be printed and, if he likes his prints, he may send them all to the city

editor for selection, or he may send down but one if it is clearly the best.

This cornerstone example typifies a simple assignment. As can be seen it is so much an automatic routine that to the experienced news photographer the assignment is second nature; he ought to be able to do it, and do it well, whether awake or asleep. To the greenhorn the hurdle is high. The reasons are chiefly mechanical. Only actual repetitive practice gives assurance. Many problems, psychological and photographic, pile up on the tyro to confuse him. Just which man should he ask about the program arrangement? How does he spot the press representative? If the group is unfriendly toward the press, to what lengths can the photographer go in obtaining his picture? How much shoving about and ordering around is legitimate? If something obtrudes between the camera and the subject may one ask the President to move a little or to hold still? And what if his hat obscures his features? If the photographer does not catch the picture at the requisite instant, may he ask for the pose to be held or repeated? Which of several points of view for the camera is the best?

This example is not meant to tell how to cover a cornerstone laying, or any similar job; individual conditions vary so much that this is impossible to do accurately. It does not profess to tell how any given photographer would go about the job. It is intended only to shed some light on what goes into the covering of an assignment; not what *is* done, but the *approach to* something done. In other words, it aims to show how the photographer's tools, experience, common sense, and intuition (his accumulated judgment) combine to produce his working method.

In cities the young photographer's problems are further increased by the presence of other cameramen. He has to squeeze his way into a huddle of toughened cameramen to get his picture; it may be difficult to get a satisfactory location. His elders will work faster than he, leaving him with few or no pictures when they are finished. That may be embarrassing. All these considerations eat up time with surprising alacrity, and the photographer out on his first job cannot neglect them.

Yet these problems are all trivial to the experienced man. They are intensely real to the newborn baby and there is obviously no categorical answer to them. They sprout up in new and

changing forms; they differ with the assignment. They vary from moment to moment, with the weather or dispositions of individuals. The only possible rule is to start with common sense, harken to the voice of the elders, use smart judgment, and hope for the best.

The Approach to an Advance Assignment

Next may be considered an example of a little less simple character which may show the approach of the practiced photographer to a less conventional situation. In it will be attempted a further glimpse into his thought processes, subconscious as well as conscious.

The corpus delicti is announced late one evening, and the fragmentary reports from the police teletype indicate front-page news. The photographer, a reporter, and a copy boy shift into high with a destination in mind but no other facts. Arrived, they scout around together to glean the elementary facts: location of body—who died, how, when, possible suspects, etc. With some groundwork to build on, they may part ways, reporter after information, photographer after pictures.

If upon arrival the groundwork was self-evident, if there was a body in sight, the photographer's camera was in operation practically as he stepped from the car. He had two or more negatives of the body as well as others of the immediate surroundings before he even stopped to think. This he did because: the body is always in imminent danger of being moved away; the police or crowd of spectators may actively discourage pictures; everyone, press included, may be unceremoniously requested to vacate. If serious troubles seem to him to be pending, his copy boy is fast receding from the scene with the first few negatives hidden away. In this case the photographer shoots one plate as fast as another can be taken from the camera. He shoots—or better here, say photographs—the body, any weapons or clues, and surroundings.

Having spun through the preliminaries, the photographer now checks with the reporter to go over any clues or information either may have. He will also watch the clock, for assuming him to be on a morning paper, a deadline is threatening. So the copy boy may be sent back to the office with the first negatives. Another factor may complicate the cameraman's technique, the desire,

or necessity, to beat, or scoop his coworkers on the other morning papers. This is an understandable and relatively honorable occupation even though it may involve subterfuge and possibly deception at the scene of activity. Outrunning the other fellow on an assignment of this type becomes an exciting game. A photographer will gleefully outwit his coworker by various quickly conceived stratagems. He will find pictures in hidden corners unthought of by other men. He will elude unsympathetic arms of the law to get his plates returned to the office safely. He will be the first to obtain the picture frames containing portraits of the deceased, relatives, sweethearts, etc. All these expedients he will resort to, and any more that come to an ingenious mind. He beats the other man at the game. However, he is not destructive about it—the game has tacit rules: he might not offer his competitor a ride should the latter's car break down, but on the other hand he does not slug his coworker into unconsciousness just to beat him back to the office, and he never steals or destroys the other fellow's film. It is one thing to outwit your opponent in a game, quite another to place his job in jeopardy or risk retaliation of a similar drastic kind on yourself!

Competitive activity may rule the day on a murder case. Just as often as not, however, depending upon the particular circumstances, complete and trusting cooperation between some or all of the photographers will be the only possible means of extracting picture material from the scene. In this case a plan of attack will be mapped out by a group with a later interchange of the important negatives among the newspapers participating, or prints will be sent by the owners of the negative to all other darkrooms.

As an example, one photographer may shoot scenes of no value in order to serve as a decoy, while another man undisturbed by meddlesome strangers or well-wishing house servants will get pictures of the important material. Again, one man may survey an interior scene, diverting suspicion from himself by not carrying a camera, so that later another man instructed in the lay of the land may get the picture before someone catches him in the act. The advantages of collusion, in general, are great. The news photographer who wants to play the lone wolf must first make certain that he will be able to get his material and also be reasonably sure he can scoop his coworkers. Some picture is better than no picture, even if it is common property!

It will not further the real purpose of this chapter to delve more into our hypothetical murder. We might present endless variations in the murder scene and for each of them indicate the probable course of action a news photographer would take. Answers to specific situations, however, are not within the province of one short chapter on covering picture assignments; nor do any more than a few typical answers solve the fundamental hows and whys of the news photographer's approach. Hence we shall leave the murder to the experienced man—the novice will not get one, unless he alone is on call—and now inquire how the beginner goes about getting a working approach which will enable him to cope with the unlimited variety of situations he will inevitably encounter.

Ingeniousness and resourcefulness of course count heavily in facing new situations. Obvious also is familiarity with equipment and manipulative techniques—complete, automatic familiarity. We have already mentioned experience. It is of course a *sine qua non*. Apprenticeship is the best form of experience for the news photographer. Lacking it, the student may have recourse to observation of actual news pictures. Much may be learned in this manner, and even more if the student actually tries his own hand at covering an assignment of the "feature" type. Almost any local event will serve as a good practice ground for the student. Such things as county fairs, the circus, the high school's home-coming game, amateur theatricals, benefit teas, outings, children's camps, track meets, cornhusking, beauty contests—the list is inexhaustible. Those who do not own synchro-flash outfits will spare themselves much irritation and discouragement if they confine their practice work to outdoor events; the wrong equipment never makes operations easier, least of all the amateur's!

Now, if possible, the student should combine the observation of specific feature news pictures with experience: after enough general photographic practice to gain some self-assurance, he should procure a set of pictures of some local event, and then compare the results with any pictures of the same event published in the local papers. After a few attempts of this sort, the student will be prepared to examine professional pictures with a critical eye and be able to gain much more from their study than if he had never attempted anything himself. He will learn to search

for the pitfalls he himself might have stumbled into; he will understand why the news photographer chose one viewpoint rather than another possible one, why he recorded the action at

Photo by John Mills, Jr.

FIG. 17.—First aid for a near-victim of drowning. The best newsphotos are those that "tell their story" at a glance.

some particular stage. This method of self-instruction, this training in simultaneous observation of the recorded picture and the event itself, will give the student a better understanding of the approaches to news photography than any series of expository examples.

Perusal of newspapers, of news stories as well as pictures, will give the student an increasing understanding of "newsworthiness." A better grasp of this value—the content of newsphotographs discussed in Chapter II—will make, obviously, a more competent photographer. This ability to evaluate the events of life in terms of news value can, of course, be learned. Nevertheless it is undoubtedly true that the greatest newspapermen come by their "nose for news" instinctively. The news photographer who consistently turns in pictures with a punch—the pictures which need no caption but tell the whole story at a glance—may have studied rules, but he has in addition to experience a special way of looking at things (Fig. 17). Not only was his eye trained to look for significant points of view, visual counterparts of the reporter's who, where, when, why, how, but he has a naturally curious nature; he has an inborn visual inquisitiveness. He has a natural tendency to judge news value correctly. How he came by these traits is another story; in part they must be the result of what values the person has been exposed to throughout youth. These traits, however, are an asset, and a great one.

In the Courtroom

In the light of this discussion, we may glance briefly at one or two more examples of a slightly different character. We may now trace our murder to the courtroom, although we shall not necessarily assume for purposes of illustration that it is actually still a murder trial. Few assignments require more patience and resourcefulness than court trials. Only one photographer at a time may be allowed in the courtroom. Pictures may have to be grabbed surreptitiously with miniature cameras. Court attendants may be unfriendly. The prisoner, or defendants, may resent publicity, dodging photographers, hiding behind people and posts. Seldom is it possible to predict entrances and exits of important characters.

Difficulties unanticipated arise to confound the photographers and reporters. Artfully planned group cooperation becomes a necessity. Thus, if a witness leaves the stand determined not to be photographed, a line of photographers may get the picture; the first camera in the path shoots off a flash whereupon the unsuspecting witness uncovers only to be confronted with another camera upon the line of march. Experience and careful thought

suggest the expedients necessary to overcome the obstacles peculiar to each circumstance. Not only must the photographer either follow the trial carefully himself or have frequent consultations with reporters, but he must also learn to judge accurately the human equations. How much picture snapping will the judge

Photo by John Mills, Jr.

FIG. 18.—An eye for humor helps the news photographer make an arresting shot out of an otherwise sordid situation.

tolerate? The sergeant-at-arms? Can the cameraman play the game alone, or would he be wiser to work with other cameramen? Will one forbidden flash bulb blown off in the courtroom spoil all further chances for cameramen?

The cameraman must wait hours for a witness to leave the court, grab his pictures on the run (literally!), and then be sure he has "mugged" the right person. And was that an important

person to shoot in the first place? There are no hard and fast rules to cover contingencies of this type; next to experience, the most helpful qualities are ingenuity, patience, and humor mingled with alertness, a certain amount of aggressiveness, and acute observation of people, their actions and behavior (Fig. 18). The newcomer usually will find some brother in the tribe willing to help him over the rough spots.

The point raised here again is the same old one. You cannot teach a man *how* to cover this or that assignment; you can only make him think about the type of problems raised by an assignment.

Feature Pictures

The origins and types of feature pictures are discussed fully in Chapter III; this section will merely deal briefly with one or two examples showing how to go about taking them. Feature pictures demand, perhaps above all others, the open and inquiring point of view. When, on a dull Sunday, the city desk suggests that the cameraman go forth and procure material—something, anything—to enliven Monday's paper, it is up to the photographer to be his most resourceful. Perhaps the assignment, as is often the case, calls for a batch of pictures on "hot weather" or "cold weather" (Fig. 16). Well, say it is hot. Off the photographer goes, looking for a group of pictures to illustrate oppressive heat. He may proceed in this fashion. He checks down the obvious listing: little girls eating ice-cream cones, children taking hose baths, people asleep in the shade, etc., down the whole list of timeworn material. Some of these subjects he will of course bring back to the editor; one cannot invariably be original about so common a subject. However, a new treatment of an old theme is always refreshing: a different face, with an appealing expression operating on the ice-cream cone, is not scorned. Perhaps a new form of ice-cream lollypop or frozen ice has just been introduced; then such a variation on the theme is worth while.

The photographer, as he goes from park to city street, from swimming pool to farmhouse, will be on the alert for new ideas. If he notes a horse drinking, he may shoot a close-up of it, not having recalled any such scene in the papers during former heat waves. The beads of sweat on his own brow may suggest a

close-up of just that, using a fat passer-by to lend humor to the picture. Or it might suggest a close-up of a man's hand running a handkerchief around his collar. One possibility the writer has noted, but never seen used, was a gift-shop show window, with candles drooping and bent double from the heat. One thing seen and another thought of—each new idea bears the germ of another. In two hours' time the cameraman will return with a group of pictures from which the city desk may select a reasonable number of conventional views with a sprinkling of new ideas to intrigue the reader.

The point of the brief example just given is that keen observation plays a large part in the creation of new or different feature pictures. Many "different" pictures are the direct result of seeing some new subject matter, while others are the result of a train of thought, in which one thing seen suggests a kindred thing unseen but possible of arrangement.

Mention should also be made of another type of feature picture: complete photographic coverage of some scene, event, industry, social event, or geographic area; doing for newspaper presentation something a little like what recently has been dubbed the "photographic essay." The approach to an assignment of this type may be outlined as follows. First, when conditions permit, the photographer should obtain at first hand a general conception of all the possible picture scenes. Thus, if it be a large bread bakery, he should follow the process through from the arrival of the raw flour to the packaging and delivery of the product; or, if he were assigned to a picture story of an army fort, a brief inspection tour of the grounds with someone in authority would serve to give him an indication of the photographic material. Such tours enable the photographer to examine selectively all picture possibilities. He should take mental notes on what he feels would give the most vivid and graphic presentation of the material. Some photographers will visualize as a group the exact number of pictures they intend to make; others may simply survey the scene to obtain a feeling for it, and then proceed to shoot everything that interests them as they go over the territory with a camera. Either method is good; in both the cameraman senses the salient photographic features and attempts to bring them out, to make each picture a simple, dramatic presentation of one unit in the whole. In other words, the pictures should be

considered, to use a literary analogy, not principally as separate epigrams, but as paragraphs or chapters which cohere to make a single purposeful essay.

Composition in News Picture Taking

Here is a word about what is called composition, or design—the arrangement of the lines and tones in a picture to make a harmonious, agreeable, or dramatic appeal to the eye. The straight news shot may or may not have what the academicians are pleased to call composition. If it has composition, then that must generally be the result of accident since one cannot do much arranging of lighting and subject matter with spot news events. Feature pictures allow the photographer some choice. If he confines his picture to one and only one subject or idea, then he has gone some distance toward achieving this intangible quality.

There are several good books dealing exhaustively with composition. Observation of good photographs and paintings is an unsurpassed training for the development of a critical eye.

A. APPLICATION EXERCISES

1. Assume, for the sake of an elementary lesson, that some simple household event occurring in the home of friends is newsworthy. The baby's birthday, purchase of a new automobile, redecoration of the house, winning of a track event by the young son, an afternoon tea, the homecoming from school of a daughter—use some event of this type. (If you are not equipped adequately for interior photography, do not attempt it.) Take your camera and cover such an event exactly as you feel it should be covered by a professional news photographer. Do not shirk your job because it is among friends: bear in mind the news slant and make a professional job of it. Listen to criticism from friends about it, or, if possible, from some newspaper acquaintance if no instructor is available.

2. Select one of the following picture possibilities and turn in three "shots" suitable for publication in your local paper: a local amateur theatrical performance; a high-school sports event; a luncheon club outing, a public concert, ground breaking or progress on a new building. Use if possible an event in which you have at least a few personal friends; your success will be measured in part by the degree of their interest in obtaining prints!

3. The amateur who feels himself thoroughly grounded in elementary techniques should search for a larger stamping ground. Obtain directly from your local newspaper, or from the city desk, a list of forthcoming events of some local importance—avoiding ones to which you do not feel you will be able to gain admission, of course—and attend one or two with

camera in hand. Do not worry too much about actually shooting pictures, but observe carefully the actions of the news photographers on the job and compare what you think you would shoot with what they actually do shoot.

4. Attend some other similar town event, whether a husking bee, a church dedication, an important wedding, an athletic event, or the opening of a new factory—anything which can be scheduled in advance—and cover it with your camera. Submit the pictures to your instructor for criticism.

5. Search through the news columns of your paper for a week or more, until you find some little news note which you feel would have interest to the local populace if it were presented more fully as a group of feature pictures or if the story behind the news were dug up by yourself and presented as a photographic essay. Prepare six to be used as a feature page. Study them to see if you feel you have actually put across an idea.

6. Originate entirely from your own mind, by means of actual observation or thought without reference to the news columns, a feature idea. Photograph it and turn the photograph in.

7. Secure from the local Red Cross, charity organization, or similar institution, a definite assignment to present their cause and activities to the public. Try to do this on a commercial basis if that is feasible.

B. CHAPTER—ORGANIZING QUESTIONS

1. It is impossible to enumerate all the possible situations and problems which may confront the news photographer as he explores life's vagaries. New situations arise continually, and one can only be instructed in them on the basis of past experience. In the light of your own study and experience, construct in detail a mental picture of how you would go about covering some spot news event about which you have recently read in the papers. Indicate your precise reasons for describing the approach you used.

2. Write an essay of not more than 300 words in which you describe cogently and succinctly what you believe to be the qualities with which a good news photographer should be imbued. If you feel there are any analogies between the qualities required of a photographer and those required by some other callings, indicate them.

3. Enumerate a series of do's and don'ts for the news photographer. Try to put them into general rather than specific terms, in other words, set them up as rules, rather than descriptions of particular little things which photographers may have done at some past time. Your list should comprise between 6 and 25 items. Add as many of your own origin as you can think up, and ask the instructor to comment upon them.

4. Secure from a library a book on composition, for example, H. R. Poore's work, making notes of those portions which you feel might have some direct bearing upon news feature work.

Chapter VIII

PHOTO EQUIPMENT FOR LARGE AND SMALL NEWSPAPERS

PREVIEW QUERIES

For immediate use and to build for future possibilities, what specific news photography equipment would you order for the general locker of the picture department? For each cameraman's individual locker?

Is flashlight powder still used in newspaper practice?

As larger sports arenas and vaster auditoriums have been built, press boxes are farther from playing fields or speakers' stands. What changes in lens equipment have newspapers adopted to meet this condition?

For what do newspapers use the "Magic Eye" camera?

What should the studio room of a newspaper contain?

What equipment should the advertising department's photographers have?

For interior general views, where a flash bulb will not give sufficient light, what device is used by newspaper photographers?

PHOTO equipment varies with the newspaper and with the importance attached to pictorial news coverage. Budget and circulation affect the amount of material purchased. In any discussion of equipment needs it must be borne in mind that many papers are still as badly off in this respect as they are understaffed in cameramen and others capable of handling newsphotos. A newspaper may add to its supply of equipment gradually, but in doing so it should be building toward a future when its photographic studio will be adequate to the growing demand for picture reporting.

In this chapter we shall describe what would probably be found in the camera lockers of an up-to-date and picture-conscious newspaper with a circulation of 125,000, in a city of some 500,000 inhabitants. We shall assume that this "model" paper has a Sunday edition and also the opposition of at least one competitor in its direct daily field. This model paper will have a chief

photographer, five news cameramen, and a darkroom boy or apprentice to comprise its staff for the pictorial coverage of news and sports assignments. In describing the photo equipment of such a paper, the intention is not to urge that this is what is needed by every newspaper plant, but merely to provide a criterion by which executives may judge what their own paper requires. This will be different in each particular case.

The camera which has been accepted as standard in the United States and which will be found in use in nearly every newspaper or photo service is the Speed Graphic. Until recently the 4 by 5 Graphic was the standard size in use, but some have changed to the new 3¼ by 4¼ size.

Each cameraman should have a locker of his own in which to keep his equipment. This would probably contain the following articles:

Standard camera

Speed Graphic with photoflash bulb synchronizer.
Tripod.
Powder flash gun and powder supply. (Yes, powder is still used for night shots where a large area is to be illuminated.)
1 doz. film plateholders.
Supply of photoflash bulbs and negative material.

Additional locker space should also be provided for extra clothing such as boots, raincoats, etc.

General Locker

There should be a general locker to keep the following special equipment:

2 candid cameras of the Leica or Contax types with one or more supplementary lenses and developing equipment.
2 12-in. telephoto lenses mounted on lensboards to fit a Speed Graphic.
1 4 by 5 Graflex with 8¼ or 8½ in. *f*/4.5 lens and a 17-in. telephoto, *f*/4.5.
1 "Big Bertha" type lens mounted on a 5 by 7 Graflex. The focal length of this lens may vary from 20 to 28 in., depending on the size of the sports stadia or baseball parks in which this equipment will most likely be used.
1 "Magic Eye" 35 mm. camera with supplementary lenses of about 6-in. focal length and a fast wide angle.
1 10-in. *f*/3.5 lens to be mounted on lens board to fit the 4 by 5 Graflex.

diff dimensional lenses.

2 photoflash bulb guns designed for firing three or more bulbs simultaneously for interior general views.
1 *f*/2.7 or 2.9 lens of 6 or 6½ in. focal length.

The use of candid cameras will depend on just how much the management of the paper cares for this type of art. At present there is a division between those who use these cameras as regular equipment and those who use them only for special effects or to obtain shots in places where regular news equipment is barred, as in courtrooms.

The 12-in. telephoto lenses for the Graphics will pay for themselves many times over during floods, river rescues, political campaigns, etc. They are light, require little space in the photographer's bag, and can be slipped into position in as little time as it takes to change a lens board.

The 10-in. *f*/3.5 lens is intended for use on the 4 by 5 Graflex on sports events on dark days when it is necessary to use the shutter at high speeds in order to stop action yet get a good exposure. The 10-in. length is suggested because it is a handy length for tennis or football from the side lines and provides a lens to balance the assortment for the 4 by 5 Graflex. The 4 by 5 Graflex with 8½ and 17 in. lenses will prove an ideal combination for sports work and for news assignments which might call for lenses of that length. It is light and therefore much more mobile than the "Big Bertha," which must be kept nearly in one spot on an assignment.

There was a time not long ago when a 20-in. lens mounted in "Big Bertha" style was considered an unusually large outfit, and the photographer who carried it was the object of much staring and questioning on the part of bystanders. Today a 20-in. lens is no longer regarded as particularly "long." Its place has been taken over by 28-in. lenses, and some of the 40-in. type are beginning to be used regularly. The 40-in. lenses have a limited usage however, for as yet they have not been manufactured in a faster lens speed than *f*/8, which requires fairly good light in order to get a well-exposed negative at high shutter speeds. This growth in focal length is accounted for by the demand of editors for large images and by the fact that the new sports arenas and auditoriums are being built much larger to accommodate greater capacities, so that the photo press boxes are farther from the playing fields or speakers' stands than formerly.

The "Magic Eye" camera is used to make a strip of continuous action. It is merely a hand-held movie camera, using film of standard size (35 mm.), the shutter of which has been arranged so that various speeds can be obtained by regulating the size of the shutter openings. Some newspapers have had stronger springs or different gear ratio inserted in the motor mechanism in order to get more frames per second, while others have had the springs or gear ratio slowed to half speed to keep from using too much film. In either event, the frames must be closely edited after development and the proper ones picked to obtain the desired continuity in the strip.

The *f*/2.7 or 2.9 lens will be usable only on special occasions, such as boxing matches, where the use of flash bulbs is barred. In some instances where this type of coverage on fights is compulsory you will probably find *f*/1.8 or 1.9 lenses.

Of course a good copy stand with shaded lights on extension arms which may be placed in varied positions and a copy camera with some free-moving, sturdy supporting arrangement are also necessary for the well-equipped newspaper.

A studio room should be provided. Its size and the elaborateness of its equipment will depend on the amount of use to which it is put. It will be used for portraits and small groups by the news cameramen and by the advertising staff for photographing their special setups of shoes, silverware, glassware, etc., which could not be photographed at the store of the advertiser because of lack of facilities. The equipment for this studio room will be about as follows:

A studio camera, probably an 8 by 10 with a 5 by 7 reducing back.
A good studio lighting unit, including general illumination and at least one spotlight.
A neutral background.
A tilting reflector and screen.
A bench and table.
A dressing table with mirror.

Equipment for the advertising department photo staff should consist of:

2 view cameras, one probably 5 by 7 and the other either 5 by 7 or 4 by 5.

Wide-angle lenses for the above, as well as lenses of medium focal lengths and filters.
2 sturdy tripods.
A Speed Graphic with speed gun, for covering advertising news pictures and promotion work.
A good set of portable lights for interior shots.

Darkroom Equipment

The equipment for the darkroom where the negatives are developed and printed will vary more in different newspaper shops than the equipment for the exposing of the negatives, for the simple reason that only in recent years has a complete enlarging machine suitable for news work been available. The homemade or assembled enlargers which have been in use for years are often still doing service, since they are stationary and usually have a long life. The horizontal enlarger has given way to some extent to the vertical enlarger, which gained in popularity principally because it saved space (Fig. 14). Some of these vertical machines are autofocus while others must be operated manually. One of the most practical for newspaper use is the old horizontal-type camera mounted vertically with counterweights arranged to take up the weight for focusing. Regardless of the type of enlargers, the news staff should have free access to one or two of these machines at all times, and the advertising photo staff should have one for their exclusive use.

There are probably some who still enlarge on chloride paper, but the bulk of the news printing is done on bromide paper, which is made particularly for that purpose.

No more than two photographers should be assigned to a developing room in order to have that room accessible when it is needed. One of the most important features of these developing rooms should be provision of hot and cold running water. Temperature control is one of the most important factors in successful negative development, and the photographer must have some means of cooling or warming his chemicals according to the seasons of the year and room temperature. A separate chemical-mixing room should also be provided in order to keep the developing rooms free from chemical dust.

All the equipment mentioned would amount to thousands of dollars, it is true, but such equipment will have a long life.

Lenses last for years; they never wear out and are seldom broken. The Speed Graphics, because they are subjected to every conceivable kind of weather and rough treatment in the course of news work, will need to be replaced every several years. Probably the same lens can be used through the life of several cameras.

In the last analysis each newspaper must decide its own requirements. The newspaper plant which invests in the latest types of composing-room and press-room machinery will also want to be a jump ahead of its competitors in equipment for pictorial coverage of the news and pictorial service to its advertisers.

The following is a possible selection of equipment for small-town-newspaper darkroom, *i.e.*, a town of about 50,000, with one to five men in the photo department. Each cameraman should be supplied with:

Speed Graphic with photoflash bulb synchronizer.
Tripod.
The usual accessories such as carrying case, a yellow and/or red filter, lens hood, focusing cloth, etc.
A wide-angle lens is a convenient extra item.

Money may be saved by having a Graphic only for each cameraman actually at work, although it is not advisable in case of emergency assignments requiring all men to come in and work.

A general locker should include:

Powder flash gun and powder supply.
1 Leica or Contax with *f*/1.5 lens.
For the miniature camera, if possible, a wide-angle lens and 1 fast telephoto lens; optional.
1 Graflex with 10-in. *f*/3.5 lens for covering sports.

Where it is not deemed advisable to purchase this much equipment, a fast 12-in. telephoto lens fitted for the Graphics will serve to cover sports events.

For the studio and advertising and copying departments, one 4 by 5 or 5 by 7 view camera is adequate. It should be provided with a fairly solid tripod, the portable commercial kind which has a center rising post. It should have an *f*/6.8 or *f*/8 lens of good definition, one element of which can be used alone to give a long-focus lens, a wide-angle lens, and one or two filters for outdoor architectural work. One spotlight should be supplied for

the studio and about four portable aluminum reflectors with lightweight stands.

A. APPLICATION EXERCISES

1. Assume that the equipment suggested in this chapter for one individual cameraman's locker would cost approximately $200; that suggested for the general locker approximately $1800; that of this equipment a Speed Graphic with photoflash bulb synchronizer costs approximately $110, a "Big Bertha" lens, $350. Remember that photographic investment will depend importantly upon the prosperity of the paper, competition, and picture possibilities in the paper's area. Select a city of about 150,000 with the newspaper and news conditions of which you are reasonably familiar. As a hypothetical recommendation to a publisher in this city, list equipment which would cost approximately half the total assumed for the criterion suggested in this chapter.

2. Suppose you had for advertising and promotion purposes a view camera with suitable lenses, a Speed Graphic with gun, a set of portable lights, and a tripod. List five specific advertising pictures in your college town which might be used in a "Home-coming Edition." List five which might be used in a midsummer special edition to try to stimulate the "summer slump." Explain what equipment you would use for each picture.

3. Assume you had a studio at the newspaper plant equipped as suggested in this chapter. List five specific hypothetical pictures of different types which would normally be taken in the studio.

B. CHAPTER-ORGANIZING QUESTIONS

1. Describe two specific pictures a news photographer might be assigned to take which would make flashlight powder advisable. Describe two in the taking of which the firing of three or more flash bulbs simultaneously would be desirable.

2. Describe two specific pictures for which 12-in. telephoto lenses would be indicated. What picture situation would call for a "Big Bertha" lens of 20 to 28 in. focal length?

3. Suppose you were assigned to get action pictures of a football game on a dark day. What lens would you take from the general locker? Would you take a 40-in. lens on this assignment? Justify your answer.

4. Suppose the army equestrian jumping team which recently had been selected to compete in the Olympic Games was to exhibit in a horse show in your city. What equipment would you take to get shots of horses and riders approaching, clearing, and landing? Why would careful editing of these negatives be necessary?

5. Why are separate chemical-mixing rooms advisable? Why is it better not to load film holders in the developing or printing room?

Chapter IX

ART-DEPARTMENT PRACTICE

PREVIEW QUERIES

In handling many pictures for each edition of a newspaper, how do editors keep the cuts from getting into the wrong edition or on the wrong page without sending detailed instructions or without following them to the makeup stones?

If the print of a picture has unessential details besides the figures in action of high news value, how does an editor give the news value maximum size in the allotted space, at the same time eliminating most or all of the unimportant parts of the print?

How may instructions be written on the back of a print, or marks be put upon the face, without their showing through or without marring the picture for future use?

Only one dimension of a picture may be controlled in reducing or enlarging. If a cut 6 in. wide is made from an 8 by 10 print, the depth will unavoidably be in exact proportion to the ratio of reduced width. Therefore, how may an editor tell almost instantly what the exact dimensions of a cut will be?

Is it possible to give a picture the precise amount of space its news value might suggest? What mechanical objection might there be to printing in a newspaper a 3-column cut of the Duchess of Windsor walking?

What kind of pictures should be retouched?

If a poor print of good news value contains a profile so lacking sharp outline that it would fade out in the halftone, what can be done to reproduce it satisfactorily?

If a picture contains too much confusing detail in the midst of which are news figures in action, how may the objectionable detail be obliterated?

AFTER a selection has been made of the newsphotos which are to be reproduced in the paper, each print is given special attention before it is passed on to the engraving plant. If it is perfect copy and if the whole of the picture is to be reproduced in the halftone, then all it will need is to have instructions for the engraver attached to it, indicating what size of cut is required and for which edition and section of the paper the cut is to be used. So that the cut may not go astray the picture will also bear a

"slug" or word by which, together with the halftone, it may be identified in transit through the art department, the engraving plant, and the composing room, where it must find its place in the proper page. This slug will likewise be written into the page dummy, in the place where the picture is to go, and will serve as a guide to the makeup man, who assembles type and halftones and arranges them in the page forms.

Thus a picture of Miss Alice Martin making her debut at a fashionable reception, to be used on the Wednesday society page, as a 3-column cut, may carry the notation "Deb—Wed Soc—3 col." Or a picture of a local theater fire for the City edition of the daily would be marked, "Fire—City." Having used a slug word once, the picture editor is careful not to repeat it; another fire picture might be slugged "Flame" or another photograph of a debutante "Jones" for the name of the girl.

If the picture editor does not wish the entire photograph to appear in the final cut or halftone, he indicates by cropping just how much he wants. There are a number of practices concerning the placing of "crop marks" on pictures to indicate the area to be reproduced. Usually, newsphotos have a small white margin, and cutoff marks placed here will show the engraver clearly what he is to include.

Some editors hold their glossy print to the light and indicate with light pencil marks on the back just how they wish it cropped. Art departments may be equipped with a glass plate lighted from below by an electric bulb, over which they place the photo face down to crop it in this manner. There is one danger in this method of cropping, and that is that the lines, if made with a hard pencil, will cause a raised surface on the front of the print, which would show if at some later time it was desired to reproduce a larger area of the picture. Writing instructions to the engraver on the back of the print may likewise deface it. When such instructions and crop marks are placed on the back of the print, they should be done with a soft pencil, with care not to indent the paper.

Many offices prefer to avoid this chance of damaging the picture, by putting crop marks and instructions on a sheet of transparent paper—a frisket—pasted to the back of the picture along the top edge and folded down over its face. The picture

can be seen through this sheet, and light pencil lines are drawn to indicate the area to be used. Even here, care must be taken not to press the pencil into the face of the picture.

When full lines forming a frame are drawn on the front of the picture itself to show how it is to be cropped, they may destroy it for future use. This method also has the disadvantage that, if the lines are not at perfect right angles, the resulting cut will not be true in shape. Experienced art-department workers often do put short crop marks directly on the face of the photo, but they do so with a lithograph pencil or white water-soluble paint and a brush stroke. After the engraver has finished with the print these marks can be wiped off with a bit of moist cotton, leaving no trace.

Photos are cropped for a variety of reasons:

1. The editor may feel that the action, drama, or reader appeal is found in a small section of the print and that the other portions are without interest. He crops it down to this vital part, which he can then enlarge to the full size of the space he has available on the page.

2. He may be able to allot only a small space to the halftone and therefore prefers to crop as much as possible, remembering that, if he does not do so, the whole picture must be reduced to the required size.

3. It may be necessary to crop the picture to some shape other than a rectangle, so that it may fit into a layout in combination with other photos. A corner which has no detail or interest may be cropped out to give a spot for type. Such a cropping out of a corner or portion of the rectangular print is termed a "mortise." Sometimes the mortise is in the form of a box or rectangle on the body of the picture. The resulting cut has a square hole, into which the printer fits the cutline type, which bears the description of the picture.

4. *Fancy* cropping as a method of ornamenting the picture is still seen, but is not considered the best practice today. A news-photo has a story to tell, a message to convey. It should do so as simply as possible, and does not need a scalloped or wave-line edge to add to its effectiveness. Where such cropping is still practiced, it is accomplished by brush strokes of soluble white paint. It is, however, a practice to be discouraged.

In ordering cuts, the newspaper column serves as a measure. Thus, the instructions to the engraver may call for a 1-column cut, a 3-column cut, a 2½-column cut, a 6-column layout, etc. Cuts made the width of the newspaper column or in multiples of that width simplify makeup in the composing room, but odd sizes may be indicated by the exact dimensions required, in inches or in picas.

The term "3-column cut" refers to a metal halftone which is 36 picas, or 6 in. in width (6 picas = 1 in.). If the area of the photograph included between our crop marks is less than 6 in., and we have ordered a 3-column cut, the engraver will *enlarge the picture* until it is that width. In so doing, he will be obliged to increase the depth proportionately. If the editor has not visualized the resulting depth as well as width, he may find himself with a piece of metal on his hands which will not fit into the space he has reserved for it in the page. Likewise, if the picture or the area cropped is wider than the column width stipulated, the engraver will *reduce the picture* to the required width, with a corresponding reduction in depth. Beginners find it hard to visualize quickly the final dimensions of a cut involving reduction or enlargement of the original. The reason is that this reduction or enlargement is controlled by square and not linear measure.

Practice in scaling pictures will soon accustom the picture editor's eye to the results of enlargement and reduction and help him to avoid errors of judgment in ordering halftones. He will soon discover that if he orders a cut twice as wide as his picture it will turn out to be, in total area, not twice but *four times as large as the picture he has in hand;* or, if he orders a cut half as wide as his picture, the total area will be *one-fourth the original size.*

In handling pictures it is customary on newspapers to refer to a "natural 1-column," a natural 2, 3, or 4 column. The fact is that it is impossible to give every newsphoto the precise amount of space in the paper its news value might suggest. The "play" of a picture is at least partly determined by its content. A group shot cannot be squeezed into 1 column nor a single figure stretched across 4 columns. Obvious as this may seem, many beginners forget it.

A full-length figure of a society deb walking may make a splendid 1-column halftone, but in 3 columns the lady might run over the top and bottom edges of the newspaper page. A picture

of six debutantes in bathing suits, sitting along the edge of a boat, might look fine in 4 columns or more, but in 1 column, on newsprint, the girls could never be identified. A well-known sports editor tells the story of his first experience in ordering a cut for his page. He had a panoramic shot of a football match which in 6 columns would have made a "splash" on the page. But he had dummied in all his stories and the spot he had left for the picture was 2 columns wide, and about 7 in. deep. That looked like an important space to him, and so he sent the picture through with orders for a 2-column cut. What he had not taken into consideration, of course, was that the depth of the picture would be reduced along with the width. Accordingly when he looked for the cut later in the composing room, he was dismayed to discover that his football game had shrunk to the size of a row of postage stamps. For his own sake in preparing an accurate dummy, and for the purpose of giving accurate instructions to the engraver, the picture editor learns to scale his pictures.

To determine what reduction will do to a picture, draw lightly a diagonal line across the back of the print, from the upper left-hand corner to the lower right. Now from the upper left-hand corner measure along the top edge the width you intend to have the cut made, and from there drop a straight line down to your diagonal. Where it hits the diagonal draw a horizontal line back to the left-hand side of the picture. The oblong you have produced in the upper left-hand corner is the exact size of the picture which will appear in the paper.

If it turns out to be too small, the experienced editor may look the picture over again and decide that instead, say, of reducing it from its present 4-column width to 2 columns, he would do better, —supposing he can only allow it a 2-column space—to *crop* it to that width. So he picks the middle out of the picture and decides that what is on the sides can be left out. Now he has a 2-column *without reduction.* The people in the picture remain as large as in the original, and the depth remains the same.

If the picture is to be enlarged instead of reduced, the ultimate size of the halftone may be obtained by placing the print face down on a larger sheet of paper, and drawing the diagonal, as described above, from the upper left-hand corner *through* the lower right, extending it on out over the paper. Now lay a ruler along the upper edge of the picture, starting at the upper left-hand

corner, and draw the line of the top edge out to the width desired for the cut. From this point drop a line to the diagonal and complete the oblong, which will represent the size of the final halftone.[1]

In general newspaper practice it is good advice to crop as much as possible and reduce as little as possible, thereby keeping figures and faces large, even at the sacrifice of background. The coarse newspaper screen will destroy so much detail that faces which are too small are apt to lose their resemblances, and all the drama of facial expression will tend to vanish. Too much reduction may turn a dramatic shot into an uninteresting blotch of ink on the page. But there is a point where cropping is akin to murder. A marvelous action shot must not be cropped so close that the action is destroyed. Care should always be taken that the cropping does not diminish the picture in any of the three essentials for which it was selected: personality, news, and action.

Nothing can be accomplished by trying to squeeze the right picture into the wrong space. If the picture is a natural 3-column and only a 1-column space is available, either stories must be thrown out to make room for the picture, or the picture must be thrown out to make room for the type. The city editor may choose to cut and edit a 2-column story to two paragraphs, but the picture editor cannot usually slash his material so drastically. Pictures rule the one handling them more often than they consent to be ruled. Try to force them into spots not to their liking and they prove as balky as mules. If they are "uprights" they may not consent to lie down and if they are "horizontal" shots they will not stand up too easily.

That is why the wise editor does not make a page layout first and then try to fit in the pictures. In the old days when pictures were not important, he could determine on a pattern of heads and then fit his stories to it, jumping them or lopping them off if they were not the right size. Pictures make a pattern of their own for the page, which falls into its natural layout around them. They do not work well into preconceived schemes. This does not preclude layout with pictures, as we shall see later. It merely precludes "forcing."

[1] Once the person handling pictures has learned the principles of scaling by practice, he may prefer to use a small logarithmic table provided for the purpose, which will give him in an instant the final dimensions of his halftone.

Retouching to Improve Copy

Newsphotos, we have seen, should measure up to a two-way standard of perfection. They should tell an important story and they should be good copy for halftone. If they answer the second requirement and not the first, they are useless. A wise picture man is not for a moment tempted by the perfect shot that has no story to tell. But if big news is breaking, or even little news for that matter, and he has only a batch of second-rate shots to get the story over, he uses them. They may be dull or blurry —one or two of them down to the point of being almost indistinguishable—but that does not deter him. In some degree they will serve to carry the facts to the reader's eye (Fig. 9). Before they reach the engraving plant, much can perhaps be done to them to improve them as halftone copy. This is the job of the newspaper retoucher.

Newsphotos are retouched to improve their copy value. This is the most important purpose of retouching. The copy values of the picture, we recall, are clarity of outlines, good detail, and contrast or range of tones from black through grays to white. A print which is satisfactory in these respects can go direct to the engraver.

Retouching is done on the glossy print with water-soluble black or white paint or with mixtures of the two to give the various gray shades. The paint is applied with an ordinary camel's-hair paintbrush or with an airbrush. The latter is an air-operated contrivance which shoots a fine spray of paint onto the picture. Much more delicate and indistinguishable retouching can be accomplished with this spray method than with a wash applied by brush.

Since clarity of outline is his first concern, the retoucher examines the print to see if the figures, forms, or faces stand away from the background distinctly. He may sharpen up the outline of a house or a tree, or, in the case of an interior, of a table or desk or chair. He may deepen the profile of a face, which otherwise would fade out in the halftone. There are several ways of sharpening outlines: (1) by running a narrow stroke of the brush around them; (2) by toning the whole figure up to a darker shade when the background is light, or to a lighter shade when the background is dark; (3) by washing the whole background over

with white or black paint, so that the figures are silhouetted against it; (4) by airbrushing the background just outside the outlines of the figures, so as to create a faint aura of light tone behind them, which shades imperceptibly into the background tint; (5) by faintly airbrushing the whole background with a white spray, so that it is still distinguishable but has been "set back" as if behind a veil. The first of these methods makes for

FIG. 19*A*.

FIG. 19.—Retouching accounts for the difference in these two halftones. *A*. The first was made from the original glossy print, which was poor copy. *B*. The artist then supplied the missing detail and contrast, and the second halftone was the result.

fast retouching, but is so crude that it may destroy much of the picture's appeal. A brush stroke around an outline should not be used unless it can be toned in and sufficiently disguised. When it can be seen it should be rejected by the picture editor. Toning up a figure or face to a lighter or darker tone in order to make it stand out against its background often means practically repainting the whole picture. It should never be done for

outline alone, but only when the detail and contrast are so poor that it needs this amount of work done on it anyhow.

Washing over the whole background with white or black paint so as to obliterate it completely is a good plan with *some* pictures, particularly those where the background is unimportant to the story the picture has to tell yet is so full of detail that it distracts the eye from the faces or figures in the foreground. Candid-

FIG. 19*B*.

camera shots of men in public life are often handled in this way. There is, however, a certain harshness to the plain background. If too many pictures in the same paper use it, the whole is apt to seem characterless and crude. It is better to reserve the plain wash background for a few shots. Make it white when the foreground figures are dark, and black when they are light. Sometimes a gray background is preferable, and occasionally the background may be made light on one side, shading to dark on the other, following the original lighting of the photograph. Keep in mind that the purpose of washing out the background is to

obliterate confusing detail: furniture and ornaments, foliage on a tree, background figures.

Where the background has a bearing on the story the picture reports, it should never be washed out. If its detail is confusing to the foreground figures, either airbrush around the outlines of these to make them stand away, or lightly airbrush over the whole background, to push it further back. In scenes such as an automobile crash, a fire, a street riot, it would be better to airbrush the outlines of important figures, but retain the whole picture intact, because every detail of it is a detail of the story itself. In a scene such as a meeting between two great European statesmen, where their mere handshake is history, it might be well to set the background back a trifle with airbrushing, in order to dramatize the meeting of the two men. Only good taste can determine which method should be used in a particular case.

Retouching for *detail* means sometimes painting in essential details, such as eyes and nose and mouth in a face, when these have been blurred or are indistinct (Fig. 19). More often it means sharpening up the tones in details of the print, so that there will be sufficient gradation for the halftone. As we have already noted, halftone depends upon differences of tone values. When the gradation of these is not sharp enough, detail is lost. So the retoucher may make a dark gray black and a light gray almost white, in order to prevent detail from dropping out. A competent retoucher may use a fine brush stroke to bring out the pupil of an eye, the pattern of material in a gown, the contours of a mouth, or any other detail which seems significant. He may use a touch of white paint to sharpen a high light. The purpose of such retouching is to produce not exaggerated effects but natural effects in halftone. *The worst that can be said of any retouching is that it shows in the halftone.* Overdone retouching, like overuse of cosmetics, is vulgar in its effect on the spectator. Only the foolish prefer to paint mechanically perfect cupid's bows on every lady's face and adorn every eye with glittering eyelashes. Stupid retouching of this sort occasionally brings furious protest from a refined woman reader, who feels—quite rightly—that she has been held up to ridicule. Even on movie stars it can become monotonous.

Retouching to improve contrast in a print is similar to retouching for detail. It simply means giving the picture a better

gradation of tone, by lightening some tones and deepening others.

The requirements of retouching then, are: (1) That it should bring the imperfect print up to what is needed for good halftone reproduction; and (2) that it should not be distinguishable in the halftone as something painted on or added to the picture.

Sometimes very important retouching must be done to bring a picture up to par. The problem then becomes how to disguise the retouching.

The better plan is to ask the photographer for an enlarged print of the picture and do the retouching on that (Fig. 20). If the picture came from a service it may be necessary to rephotograph it to obtain an enlargement. If it is a staff photo a new larger print can be made from the original negative. If the retouching is done on the enlargement and this is then reduced in the process of making the cut, the brush strokes and other traces of retouching will usually be found to have disappeared. When there is time and it is thought desirable, a still better result may be obtained by rephotographing the retouched glossy print, retouching this slightly to remove traces of the first retouching job, and then passing it on to the engravers. Such retouching seems laborious and costly, but occasionally it will enable a newspaper to beat its competition by turning a blurred, seemingly unusable shot into a real picture scoop.

Of course the picture editor is mindful of deadlines, and he tries to make a selection of shots which require the minimum of retouching. Only for the occasional and important news picture does he ask for retouching which requires a great deal of expert attention. If he dumps a batch of photos requiring retouching into the art department at the deadline, he cannot expect to obtain results.

When the picture editor or any other editor handling pictures on a newspaper does not understand the purpose of retouching, he is apt to demand it where none is needed. If the picture is sharp, detailed, and well contrasted, *let it alone*. Because of the ignorance of editors, many newspaper retouchers now feel it safer to wash a little paint onto every picture that passes through their hands. When something goes wrong in the engraving or the printing and the picture does not reproduce well in the paper, the editor may seek to blame the trouble on them, if the print was not retouched. So they put on a little paint, just to be able to

FIG. 20*A*.

FIG. 20.—The Dionne Quintuplets in their first photograph, by William F. Hirst of the Toronto *Telegram*. Like most new-born babies, they were red, and so photographed black (*A*). The Washington *Post* made an enlarged print of each, so the artist could retouch to lighten dark tones (*B*).

FIG. 20*B*.

FIG. 20*C*.

The "Quins." The result of the retouching was the layout of the five infants shown in *C*. (*Art work by Samuel F. Perkins. Wide World Photo.*)

wash it off while the editor is looking, and thus prove that it is there.

The really clever editor tracks down the real causes of bad reproduction and does not oblige the retoucher to resort to trickery in self-defense. He knows that the *right* amount of retouching is what is required to bring the picture up to reproduction standards, whether this means *none*, or a very *slight* amount, or so much that it seems like *painting a new picture* over the old shell.

In a later chapter we shall return to the art department, to see that even perfect picture copy may be enhanced by certain methods which are not, properly speaking, retouching. Before we consider these it is best to learn the rudiments of the engraving process.

APPLICATION EXERCISES

1. Suppose you have ten pictures and wish to place them, sizes indicated, as follows:

a. The Duke and Duchess of Windsor walking down the gangplank upon arrival in America, 3 columns, p. 1;

b. Gloria Browne, society debutante, 1 column, society page;

c. Eighty-year-old university building burning on local campus, 4 columns, p. 1;

d. Local boy who won tristate golden gloves championship training for his first professional fight;

e. Alyce Lange, who will make her debut tomorrow, 1 column, society page;

f. Residence of fire chief burning while chief and his men fight university blaze, 3 columns, p. 3;

g. The Duke and Duchess of Windsor embarking at Cherbourg for America; 3 columns, p. 2;

h. English "hope" training for title fight with Joe Louis, 3 columns, second sports page;

i. Young society girl who will marry the youthful president of her college after graduation, both residents of small college town 200 miles from, and in same state with, paper's place of publication; 2 columns, p. 1, second section, state edition;

j. Mayor recently elected by strong American Legion vote in small city in other part of state, 1 column, p. 3, first section, state edition.

Indicate by slugs how you would identify these pictures for publication, last two in state edition only, remainder in complete city edition.

2. Take recent copy of nearest metropolitan paper. Rule a sheet of 8 by 11 paper as layout schedule sheet. Indicate a layout for a front page, using front-page pictures for city edition listed in Exercise 1. Show assumed news stories for pictures, finishing page with news from your selected paper,

dropping out appropriate stories to give room. Change make-up of selected paper entirely, if you wish, but be prepared to justify your make-up.

3. Select three photographs you have taken which would need cropping for publication. Indicate cropping to be done and width of desired cut, assuming you have neither soluble paint nor soft pencil.

4. On one of these pictures indicate what the exact final dimensions of the cut will be, showing how you scaled it.

5. Select a picture of a tall, slender woman standing, or block in such a simulated picture on copy paper. Show what would happen, supposing the woman high in news value, if you tried to "force" the picture for a 4-column space on the feature page.

6. Select or block out on copy paper an 8 by 10 horizontal shot of ten bathing beauties lined up on dock. Show what would happen to this picture in reproduction if a 2-column cut were ordered from it.

7. Select three pictures you have taken which would need retouching for best reproduction. List defect or defects which require touching up.

8. Try retouching one print for clearer outline with soluble paint and a camel's-hair brush. Be prepared to explain an advantage of this type of retouching and a disadvantage of it.

9. Take a candid shot of a "news figure" in your community. Obliterate the background. Explain why you would do this and why many such treatments in a paper would give what bad effect.

10. Begin searching for pictures in newspapers which have been over-retouched. Turn in with next assignment at least two, explaining the defects.

B. CHAPTER-ORGANIZING QUESTIONS

1. If several pictures of society girls are to be run with announcements of social events, or alone as deb news, what precaution is taken in slugging them for individual use? Why is this advisable?

2. Suppose you get a picture showing the political boss of your state shaking hands with the governor after political reconciliation following a nationally reported fight in which the governor practically broke the back of the machine: an 8 by 10 print of the scene in governor's office including furniture, wall map, pictures, etc. What would you do as picture editor to make this picture as dramatic as possible?

3. Suppose you have an 8 by 10 print of two gangsters' bodies where they fell in governor's office in gun battle in which state police killed them as they attempted to assassinate the governor, furniture overturned, wall bullet-marred. How much of this print would you print?

4. Explain two methods for putting crop marks on a print without injury to the print for future use. Explain a method for applying crop lines without marking the print at all. Explain dangers in marking crop lines. How should crop marks be put directly on face of print?

5. The advertising department requisitions a 1-column cut of the Unknown Soldier's monument. You have an 8 by 10 print of it showing background objects. Copy for the advertisement is built around the

inscription, which must be legible in reproduction. What will you do with the print?

6. Explain what a "mortise" in a cut or layout is. Why is it used? Set forth a concrete situation in which you would crop a picture for a specific layout using a mortise.

7. Discuss "fancy" cropping and ornamenting.

8. Suppose the space between crop lines on a print is 4 by 6 in. If you order a 36-pica width cut, what will be the exact dimensions of the halftone in inches?

9. If you order a cut one-third the width of a 6 by 8 cropped space, what proportion of the area of the cropped space will the area of the cut be?

10. Suppose you have a picture reporting big news in which the figures are dark against a light background but in which there is danger of the figures in reproduction blurring into the background and in which detail is defective. Explain five ways to improve this picture, one or more of which might be used before the engraving is made.

11. If an excellent news shot shows a billboard which might be construed as free advertising and which otherwise mars the news portrayal, what can be done about it, if the billboard is so placed as to preclude cropping it out?

12. How may tones be deepened and shadows intensified?

Chapter X

PHOTOENGRAVING; PLANOGRAPHY; HALFTONE COLOR WORK

PREVIEW QUERIES

Why is the metal plate for printing photographs in a newspaper called a *halftone*, whereas the plate for printing cartoons is called a *line cut?*

How may the halftone and line-cut processes be combined for newspaper layouts, whereas a line cut cannot be used to reproduce a photograph?

How can photographs be transferred to zinc plates in such a way as to "emboss" them so that they will, when inked, print like type?

Does any method exist for printing pictures with a metal plate the surface of which is flat?

When you take a picture, it is reversed in the negative; printing it on paper brings it right again. If you were to print your negative on metal as you print on paper, your plate picture would be positive again but reversed when printed in the newspaper. What is done to prevent this?

What is meant by an "80-line screen"? What would happen if a 150-line screen halftone were printed in a newspaper?

Where is the screen placed in rephotographing a picture to make a halftone?

Why do the palest tones in a newspaper reproduction of a photograph consist of fine *black* dots, whereas the darkest tones consist of fine *white* dots?

If a halftone engraving is an essentially flat surface composed of tiny dots inked as type is, how can a picture be printed to reproduce several colors?

Why is color printing not apt to be used in the near future for the general run of news pictures?

AMONG the arts, photoengraving is the natural twin of news photography. The news camera brings us a daily pageant of the contemporary world, more fascinating and more accurate than any other record of events. Yet without photoengraving this record would be lost to the reading public, for the simple reason that pictures could not be reproduced with print. The engraving process, itself involving photography, makes possible

the swift reproduction of a million or more copies of a single picture, by *translating its tones and outlines into a relief surface which can be used for printing.* The newspaper engraving plant may seem bewildering to the editorial man who visits it for the first time. Yet the steps by which any sort of picture—whether photograph or work of a newspaper artist—becomes a metal printing surface are really very simple.

In this chapter we shall consider two fundamental engraving tasks: the making of *line cuts* and the making of *halftones.* Strictly speaking, only the second has to do with the reproduction of photographs. In practice, combinations of the two occur in newspaper layouts.

A *line cut* is a reproduction in metal, for printing purposes, of a drawing consisting of black lines or dots, with no intermediary tones. The newspaper artist usually draws the original for the line cut with black ink on smooth white paper or card. He may vary the appearance of his drawing by filling in parts of it with solid black, with crosshatching, or with simple dots. But he cannot employ wash to imitate the blending of tones found in a photograph.

A *halftone* is a reproduction in metal, for printing purposes, of a photograph or of any other picture which like a photograph has a *continuous tone surface,* showing gradations from pale gray to pure black. The original may be a photo, or it may be a charcoal or wash drawing. In any of these the solid or continuous masses must be broken up into small discontinuous masses or dots, after which the procedure parallels that for making a line cut. The breaking up, as we shall see, is accomplished by the action of the halftone screen.

First Principles of Engraving

In order to understand better what happens in the production of either a line cut or a halftone, imagine for a moment that you have sketched a picture on a sheet of smooth zinc with an inky substance which is resistant to acid. You now dip the metal into an acid bath which eats the surface away, everywhere except where the acid-resistance substance you used for your drawing provides a protective coating. When enough of the metal has been etched away you remove your plate and clean off both the acid and the substance with which the picture was drawn. The

lines of your sketch now stand up above the portion of the metal the acid dissolved. If your drawing was in bold, strong lines, they are now there in relief on the metal, with flat upper surfaces like the surface of the original plate. Pass an inked roller over them, and they will print your sketch onto a sheet of paper.

If your original sketch had been made on paper instead of on the metal itself, your problem would have been to transfer it to the metal, so that such a process as just described could be carried out. The first steps taken by the engraver, then, when he is handed a picture to be made into a cut, are for the purpose of *getting the picture onto the metal.* The simplest way to get it there is by photography.

A news cameraman makes a photographic negative and prints it onto a sheet of paper. An engraver makes a negative in his process camera and prints it onto a sheet of polished zinc over which he has previously spread a thin coating of a substance which, when exposed to light, becomes insoluble in the developing bath and adheres to the metal. Thus, wherever the light passing through the negative has printed the picture, the coat becomes insoluble, while whatever is not included in this printed picture can be washed away. This leaves the picture in the form of a light acid-resistant coating on the metal. The engraver gives the back of the plate a protective coating, usually of asphaltum, and then immerses the plate in the acid bath, to etch away the portions of the plate which remain bare and are therefore subject to the attack of the etching acid.

This description has been simplified in order to make the process intelligible to the beginner. Now let us go back and follow the engraver step by step as he turns out a line cut.

Making the Line Cut

Here on the table in our engraving plant are a number of cartoons and line drawings scheduled for tomorrow's paper. The artists have executed them with firm black line on smooth white card. Outlines are strong and definite, since these are the sort that will reproduce best.

The engraver prepares to photograph the first of these in his *process camera.* This is a large camera of permanent construction, on a track, with a fixed frame to hold the picture copy. The whole apparatus is mechanical, even to the focusing, which is

figured by means of a ratio table. After he has fixed the copy in the frame, the engraver sets the camera on the numbers previously determined by the ratio table, in order to secure a negative of the desired size for making the cut. Since contact printing will be used to transfer the picture from the negative to the zinc plate, enlarging or reduction must be accomplished at this point.

For negative, the engraver uses a roll of film known as a *strip film.* It consists of a photographic emulsion on a paper or cellulose base. The strip film comes in widths of 6, 9, 12, or 19 in. and is 150 ft. long, so that many pictures may be copied before a new roll need be placed in the camera. The emulsion or film is of a consistency which is strong enough to permit it to be handled alone, when the paper backing has been removed.

The picture in the copy frame is illuminated with mercury tube or arc lights and the exposure made. The camera lens is a fully corrected optical instrument with a diaphragm which the operator opens or closes as required to obtain the correct exposure. After exposure the film is placed in developer and then in hypo or fixer. In the fixing bath it separates from the paper.

The engraver can now strip the film or parts of it onto a large plate glass, grouping and combining negatives as he desires, preparatory to printing them on a large sheet of zinc. Copies of many pictures are thus grouped and printed, as the large sheet of metal is more convenient to handle in etching. When etching has been completed the various cuts can be separated with a saw. As he puts the negatives down on the plate glass, he reverses each film. A moment's reflection will show the reason for this. If you take a picture it is reversed in the negative but comes right when you print the negative onto paper. But when you are printing from a metal cut there is one more step added, thus: (1) The original picture is (2) reversed in the negative; (3) printing on metal would bring it right again, *but* (4) printing the metal cut onto paper would reverse it. This final result would be wrong and it is corrected by reversing the film when stripping it onto the glass.

We shall see that the engraver, in grouping the stripped films to form a large negative for printing on metal, may work out many special combinations. For instance, he may surround a halftone negative, made from a photograph, with a border of line negative

made from a drawing. The resulting cut would be known as "combination line and halftone." Many interesting effects are produced in this way.

When the large composite negative is completed and dried, it is ready to be transferred to the metal. This may be zinc or copper, 16-gauge and highly polished. Zinc is generally used for line work and for both line and halftone in newspaper work. Copper is better for fine halftones, but few newspaper engraving plants now use it because of expense.

Preparing the Metal. The metal plate requires special preparation to receive the photographic image. The engraver scrubs the zinc with pumice powder to remove all signs of impurities or grease. This gives it a surface to which the sensitizer he is about to apply will adhere. Now he gives it the sensitizing coat of shellac reduced with ammonia and water and sensitized with ammonium bichromate. The coating is flowed over the plate, which is inverted and whirled over heat until dry. The inverted whirling gives even distribution of the solution over the entire plate.

Printing on the Metal. The sensitized metal plate and the negative side of the plate glass are brought together and locked up in a printing frame in which a vacuum is created to produce perfect contact. Then powerful arc lights are turned on the glass, so that the negative is printed on the zinc. Wherever the light, passing through the negative, registers the picture on the coating, it becomes insoluble in developer. Wherever the light has not penetrated, because it was stopped by the opaque parts of the negative, the coat remains soluble and washes away during the next step, that of developing the picture on the metal.

Developing the Picture Image on the Metal. The plate is now developed and the soluble portions of the coating are carried away. *The insoluble portions of the coating remain on the zinc plate in the form of a printed picture,* and the coating which adheres to the metal will protect the zinc beneath from erosion in the acid bath.

Etching Begins. Now the engraver gives the plate its first "bite" in a weak solution of nitric acid, which attacks the unprotected portions of the surface and begins eating them away. However, he proceeds with the etching cautiously. The lines of the image are well protected on the surface of the metal, it is

true, but the acid may strike down underneath this surface coating, just as soon as the depth of the "bite" permits it to do so, and thus the image may be destroyed by undercutting.

While danger of undercutting is believed to be not so great as was once supposed, the engraver does all he can to avoid it. He gives the plate only a slight first etching. Then he removes it from the acid bath and carefully dusts the sides of the lines, which are now in slight relief, with a resinous powder, melting it on to give protection from the acid where it touches the sides of the lines. He then reimmerses the plate in the acid bath, etching away the unprotected portions of the metal to a greater depth and obtaining more relief for the lines of the image.

As soon as the depth of the etching again creates the danger of undercutting the lines, he must remove the plate and repeat the process of coating the sides of the lines with resinous powder.

Each bite or immersion of the plate in acid brings the lines of the picture image into greater relief, while the care exercised in protecting these lines insures that they shall be firm and strong, with good supporting base. When the engraver judges that sufficient depth has been obtained for the etching—usually after four or five bites—he removes the plate from the acid bath, scrubs it thoroughly with lye, and polishes the top surfaces of the lines, which now stand up in bold relief.

Routing Out Etched Portions. The etched parts of the line cut are still further deepened or removed entirely with a high-speed, vertically revolving cutting tool known as a *routing machine*, which leaves holes in the plate where the excess metal has been eliminated. The plate, we recall, is a large sheet of zinc on which not one but several pictures have been reproduced. The individual cuts are now separated with the routing machine or with a saw.

Making the Cut Type-high. The cuts have a relief printing surface, but they must be made the same height as the type with which they will be locked in the newspaper-page form, when the printer makes them up into pages along with the slugs from the linotype machines. Sometimes this is accomplished by mounting the cuts in the engraving plant. Their edges may be beveled to give a nailing surface, after which they are nailed to a wooden block the exact size of each cut, or the cut may be soldered to a metal base to make it type-high.

Most newspapers are abandoning the wooden base today, because unless it is special laminated wood it will not stand up under the pressure to which it is subjected in the new model dry-mat stereotyping machine. Many no longer mount their cuts at all, but simply lay them on standard-unit steel base in the page form. Any number of these units may be combined to form the mounting for a cut or a layout. This method has the added advantage that, with the dimensions of the layout furnished him, the printer can build the base into the page without waiting for the cuts to arrive, and merely lay these in position at the last moment.

Making the Halftone Cut

So far we have watched the engraving process only in the reproduction of a line drawing. We saw the engraver photograph the drawing to obtain a negative, from which he printed the picture onto a sheet of polished zinc, then etched away the parts of the metal not contained in the image, so that the lines of the picture became relief printing surfaces on the metal. This seems relatively simple. But if the picture had been a photograph, with continuous tones instead of lines and white spaces, there would have been nothing to etch away. How then, one might ask, could relief surfaces have been obtained?

Photoengraving overcomes this difficulty by *breaking up the continuous or blending tones* into minute printing surfaces or dots and minute areas that can be etched away. The dot formation of the halftone carries the tone values of the picture to the printed page in *discontinuous* form. If the halftone dots are small enough and frequent enough to escape attention, and if they are in varying sizes and pattern, so that they carry less ink to the page for the lighter tones and more for the darker tones, they will succeed in simulating for the eye the whole tonal range of the original photo.

The medium which accomplishes this breaking up of the continuous tones of the photograph is the halftone screen, which, simple as it is, is one of the most remarkable achievements in the history of etching.

What the Halftone Screen Is; How It Is Made. Rephotographing an ordinary photograph through a halftone screen is like viewing it through a curtain composed of minute holes which let

through only tiny patches of the picture. The screen is a double thickness of glass, with ruled lines intersecting each other to create the infinitely small apertures through which the light is reflected from the original picture. Examine any printed picture in your newspaper and try to visualize the fineness and closeness of the lines which could result in dots so small and so close together. Yet the screen used for these newspaper cuts is coarse compared with those that are used for the best halftone work.

Alongside the task of accurately ruling a piece of glass with 150, or even with 80 or 60 lines to an inch, the manufacture of fine watch movements seems fairly simple. Actually only a few firms in the world do the job well enough for commercial purposes. They do not attempt to put rulings in two directions on the same piece of glass. Rather, they rule two pieces and then cement them together so that the lines on one intersect the lines on the other. To rule a piece of glass it is first covered with wax and then the wax coating is ruled with delicate incisions. Into these acid is poured, which etches faint lines on the smooth glass surface. The wax is then removed and the etched lines are filled with black ink. The lines are placed on two pieces of glass diagonally, in such fashion that when one is cemented to the other the lines will cross each other at right angles. This makes for a better dot formation than if the rulings were on the straight perpendicular, for this would result in a pattern more noticeable to the eye.

Position of the Screen. It might seem natural to expect this screen to be placed between the picture to be rephotographed and the engraver's camera. But that is not the case. The screen is *in the camera,* back of the lens and immediately in front of the halftone negative or strip film. The light reflected by the varying tones of the picture are projected by the lens *through the screen* onto the negative, where they result in dots of various sizes and shapes.

Theory of Dot Structure. Technicians have done much research on the nature of the dot structure produced by the halftone screen. It is the result of a combination of factors, among the most important of which are: (1) the quantity of light reflected through the lens from the dark and light tones of the original picture; (2) the aperture of the lens; (3) the proximity of the screen to the sensitive plate.

Examine any printed halftone in book or magazine or newspaper which has a screen coarse enough to reveal its pattern, and observe that the palest tones of the picture are very fine *black dots*, while the darkest tones are fine *white dots* on a black background. In other words, in the light portions the dots are the metal printing surface, while in the dark parts the background is the metal printing surface and the dots are etched out of this.

To understand this, let us see what happened when the original photograph or glossy print was copied by the engraver in his process camera. The palest tones in this glossy reflected a large amount of light through the camera lens and screen, producing a black surface with white dots on the negative. The intermediary tones of the glossy produced a checkerboard of almost equal black and white squares. The more light was reflected through the lens the larger the black squares became, until the high lights were almost solid blacks with white pinpoints. The darkest tones of the glossy reflected so little light through the lens and screen that the negative remained almost clear, with only tiny black dots where a little light was reflected to the negative through the screen's openings. In the subsequent printing of this halftone negative on metal, the pattern is reversed—so that the originally lighter tones produce black dots on an unexposed background, the darker tones a black background with unexposed dots.

As the unexposed parts of the metal surface will be attacked by the acid, it follows that the background of the light tones will be etched away, leaving dots that stand up to the printing surface. In the case of the dark tones the acid will attack only the dots, thus etching out holes in the otherwise protected flat metal printing surface.

In ordinary halftones it is evident that even the high lights will have a faint dot pattern. This detracts somewhat from the effectiveness of the printed picture. In engraving practice there are several methods of restoring the high lights to the pure white they were in the original photograph. Sometimes they are restored, but often they are not, because to do so adds to engraving costs.

The halftone negative is usually stripped onto a large plate glass, as described in the case of the line cut, and printed in a contact frame onto sheet zinc or copper. Copper is used for fine

halftone work, but zinc is more often employed by newspapers. Preparation of the zinc plate for printing has been described. The printing is carried out in a contact frame as it was for the line cut. The only difference is that instead of having an image in line transferred to the metal, we now have an image on the metal in dot pattern.

In etching the line cut, the engraver was very careful to prevent the acid from undercutting the lines of the image. In etching the halftone, he permits the acid to eat away the metal of the high-light dots until these dots are very small. At the same time the acid is of course deepening the dots or holes in the dark tones of the picture.

Fine-screen Cuts on Copper. Fine-screen cuts on copper will not be used for newspaper purposes, but for commercial work and illustration. The method just described is somewhat modified when copper is used instead of zinc. The metal is given a sensitizing coating of ammonium bichromate solution, with fish glue. When dry this forms a hard yellowish top on the metal which is both light-sensitive and acid-resistant. It is soluble in water except where it has been exposed to the action of light, and there it becomes insoluble.

The halftone negative is contact-printed onto this sensitized metal, which is then developed in water. The unexposed fish glue washes away. There remains after development a faint dotted pattern of fish glue which is a reproduction of the picture image. The engraver may use a dye on this to bring it out sharply so he can examine it. Then he bakes the top onto the plate by applying heat and proceeds with the etching. The fish glue forms a protective covering for the metal, which everywhere else is attacked by the acid.

A first "bite" is given the metal in a bath of iron perchloride, which should etch it away to a good printing depth. The plate is then removed and its surface is filled in with white powder, so that the engraver may compare it with the copy. Any tones which he thinks should be protected against further etching he coats with an acid resistant, before giving the metal its next bite. As the final stage the engraver may apply the etching acid to small areas with a brush.

The newspaper halftone on zinc receives no such careful treatment. We have briefly described fine-screen work on copper

because the picture editor will wish to understand it, if only as a comparison with the coarse-screen engraving he is using.

Proving the Halftone and Line Cuts

All cuts, whether halftone or line, are proved on a hand press in the engraving plant before they are delivered. The proofs are examined by the engraver to make sure that his work has been properly carried out. Then cuts, proofs, and original photographic copy are delivered to the cut bank in the composing room of the newspaper. It is the duty of the man on the cut bank to assemble layouts, when these are made up of separate cuts, to base them up if metal base is used, and to put cutlines which have been set with each cut, before delivering it to the man who is making up the page.

Halftone Color Process

Before leaving the subject of halftone engraving, the student will want to know something of the manner in which halftone is used to reproduce a photograph or painting in full color. As a matter of fact, most of the full-color printing appearing in newspapers today is in the rotogravure section and is not the result of halftone engraving. Rotogravure methods will be described in a later chapter, but they will be better understood if the halftone color process is analyzed here.

Color photography may have recorded a score of softly blended hues, or the painter may have used a wide range of pigments in transferring his subject to canvas. Halftone can sort out these mingled values, reduce them to the three primary colors, translate each of these into a halftone printing surface just as it did a black-and-white photograph, and then, by successive printing of the plates with yellow, red, and blue ink, can obtain a picture closely resembling the original. In actual practice a fourth, or black, halftone plate is also used, for the black printing gives strength and detail and brings out the neutral tones of the original.

Making Halftone Negatives for Color Work. The halftone negatives made for color engraving are called "separation negatives," since they separate the colors found in the original, recording them on separate films. The separation is accomplished by means of color filters placed just behind the lens of the engraver's

camera, through which the light reflected by the original passes before it strikes the negative. These filters are gelatin films dyed with aniline to colors which are complementary to the primary colors of light. By means of the red filter a halftone negative is made of all the blue in the picture; with a green filter all the red is photographed; and with a blue filter all the yellow. Even when colors are in combination, they will be filtered out—the red out of the purple in the original picture, the yellow out of the green, etc.—so that the resulting negative of each color carries in halftone dot structure a graduated black-and-white record of all the varying amounts of that particular primary color present.

The negative for the black plate depends upon the discretion of the engraver, who must decide according to the tones of the original what color filter to use, to get a black printing which will add strength to outlines and details and back up tones where depth and shadow are required but which will not print over and muddy the clear pale tones of the picture. In practice the negative for this black plate is often made with a yellow filter.

If different color filters were used, but the halftone screen remained in the same position for all four exposures, the resulting four color plates would all show an identical dot pattern, and in printing the dots of one color would tend to fall upon the dots of another. At first that was the way it was done, but it was found by experience that the coincidence of dots did not give satisfactory color gradation in the printed picture and did produce conspicuous and annoying pattern, or *moiré* effects. Today the engraver's camera used for color work has a circular halftone screen which turns in a frame on which the 360 deg. of the circumference are indicated. By turning it, the operator can vary the position or angle of the screen for each exposure, thus obtaining a different position of the dots in each halftone color plate.

It will be recalled that the lines of the screen intersect each other at right angles, so that each pair of intersecting lines has four terminal points in the circumference. Accordingly the total variation in screen positions for the four exposures would have to be less than 90 deg. It was found by experiment that altering the screen angle 30 deg. for each color gave a satisfactory dot pattern in the color printing. But this allowed only for three, instead of four, exposures. Further study showed that the yellow

produced little pattern in printing and could therefore be close to the other colors. The usual procedure is therefore to make the exposure for the black plate with the screen angle at 45 deg., for the yellow plate at 60 deg., for the red at 75 deg., and for the blue at 105 deg. This gives 30 deg. variance between black and red and between red and blue, while yellow is separated from the black and from the red by 15 deg.

Each of the halftone color negatives is printed on metal and etched exactly as described for ordinary halftone. In printing, the yellow plate carries yellow ink, the red carries red ink, etc., and, as each plate represents the gradations of that particular color which were present in the original picture, the four successive printings result in a reproduction of the tints of the original. At least, theoretically they do; as a matter of fact, halftone color work is by no means so accurate and precise in duplicating tones as this description might imply. A near-perfect result depends upon the skill, one might call it the "sixth sense," of the engraver, who supplies in the etching process much of what the negatives failed to record. He must be able to judge how strong a printing impression will be required of each color plate and etch it accordingly. Several times during the etching process the plates may be proved and the printed picture compared with the original for discrepancies in tone values. Then, by further etching, strength will be supplied where it is lacking.

In printing the halftone plates, the yellow is usually printed first, then the red, the blue, and, finally, the black.

Theoretically also, there is no apparent reason why these halftone color plates cannot be transferred to stereotype mats and full-color pictures printed in the newspaper. Actually, the mechanical difficulties involved are pretty great. On rotary presses, such full-color printing involves perfect synchronization, so that the paper web, passing from one color cylinder to another, will be in exactly the right position to obtain the surprinting of each of the four color plates. This is perfectly accomplished in rotogravure printing, but presents grave obstacles in the average newspaper plant. Moreover, presses for color printing must be equipped to use fast-drying inks, in order to print colors one on top of another at high speed. Ordinary newsprint is not too good a material to receive such color impressions, although on a good grade of newsprint amazingly fine results can be secured.

Whatever the difficulties, it seems likely that newspapers are going to go in for full-color halftone in the future. However, it seems probable that for some time to come color will be used only for features and for advertising. We may expect to see the news of the world covered as we are seeing it today, in black-and-white halftone. Nor need we feel too badly about this; it has decided advantages.

Planography

The photoengraving processes described above are employed by almost all newspapers today in reproducing newsphotos and other art work appearing in their pages, but in many allied fields of publishing another method is rapidly gaining favor. It is photolithography, combined with offset printing, and is currently referred to as planography.

Planography represents a method of printing from the flat surface of a metal plate, thereby eliminating much of the expense involved in photoengraving. Growing popularity of the planograph process can be attributed both to the reduction of costs as compared with those for making etched plates of copper or zinc and to the fact that offset printing yields highly attractive results.

Often the advertising and circulation departments of the newspaper may order booklets and other printed matter from an outside planograph firm. It is therefore important for the newspaper worker to know something of what this process involves.

History of Planography. In order to understand photolithography, we must go back to the more or less accidental invention of lithography by Aloys Senefelder in 1796. Senefelder, a musician of Munich, Germany, had become impatient with the easygoing methods of the printers of his day and with the long periods of waiting for them to turn out copies of his manuscripts. He began looking around for a way by which he could reproduce his sheets of music at home.

For a long time he searched vaguely. His attempts to etch copper plates and print from them were unsatisfactory. Meanwhile, from a neighboring quarry he had bought some Kelheim stone for use in mixing his inks. The stone attracted his attention as a possible substitute for copper, since its surface could be

brought to a high polish not unlike the polished surface of the metal. Senefelder began etching on the stone, but later he simplified the whole process by drawing the notes of his music backward on the surface of the stone with a greasy ink of his own invention and printing therefrom. At the time he had no thought of the possible artistic applications of his method, being uniquely interested in the fact that the Kelheim stone was cheaper than copper. When later he demonstrated his process in Great Britain it was hailed by many artists, who used it to produce the beautiful lithographs which have come down to us from the nineteenth century.

Printing from a Flat Surface. The importance of Senefelder's idea was that it provided a method of printing from a flat surface. The gray or buff-colored limestone he used was peculiarly suited to lithography because of its homogeneous structure, its ability to take a polish, and other characteristics. That this stone occurred in the region where Senefelder lived was a fortuitous circumstance to which we doubtless owe the invention of lithography. Senefelder did not confine himself to the stone plates, once he had evolved his method. There is evidence that as early as 1818 he was experimenting with zinc plates. In the early days of lithography both zinc and aluminum were employed for flat-surface printing. By 1870 aluminum had gained wide acceptance as a substitute for Kelheim stone.

The development of photography was almost simultaneous with that of lithography, and its appearance promptly suggested to many minds the possibility of substituting a photographic image for the work of an artist on the lithographic stone or metal plate. The first photolithograph was made in 1852 in Paris, by a lithographer named Lemercier, aided by an optician and two chemists who were also amateur photographers. These four Frenchmen covered a lithographic stone with asphalt or bitumen, exposed it under a paper negative, and then developed it in turpentine.

In 1859, John W. Osborne of Melbourne, Australia, coated fine linen paper with gelatin and albumen and on it made a lithographic transfer by photography. On March 4, 1873, the New York *Daily Graphic*, a daily illustrated newspaper produced by lithography, created a sensation when it appeared on the newsstands. It was printed by means of photo transfers on stone.

Offset Printing. A better method of printing, however, was required before photolithography could come into its own. This development did not occur until recent times. When Ira W. Rubel, a New Jersey printer, discovered he could print onto a rubber blanket and then offset the impression on almost any kind of paper, he gave surface printing the tool which was to change the older forms of photolithography into the modern rapid planograph process.

Rubel's invention, like that of Senefelder, was largely the result of chance. Tin-plate decorators had for years been employing a method of printing by offsetting a design from a tin plate to a rubber blanket and then to the surface to be decorated. It is unlikely that Rubel was familiar with that fact. The offset printing idea occurred to him while he was running off a job on his presses. The impression cylinder had skipped an impression, thereby transferring the image to the rubber. With the next impression it was printed on both front and back of the paper. The impression on the top of the sheet was made by the metal, that on the back from the rubber blanket. On comparison Rubel found the printing from the blanket as clear and in some respects more attractive, because it had greater delicacy. After experiment, he succeeded in constructing a press in which the impression was regularly transferred from a metal cylinder to a rubber blanket and thence to paper. The Rubel Offset Press, the first of its kind, was followed by many others.

At first, offset printing, while fairly successful for reproduction of art subjects, was regarded as giving poor results when the copy involved type matter. Also, photographic reproductions made by planography were less sharp and brilliant in effect than those produced by photoengraving. Many of the early objections have now been eliminated by better offset presses, by more expert preparation of the photolithographic plates, and by manufacture of papers specially adapted to this type of printing. Today, high-speed offset printing offers a method of reproduction which represents a great saving of costs on many kinds of work.

In applying photolithography to printing, it becomes necessary to transfer the photographic print directly to a metal sheet which can be bent and attached to the roller in the offset press, since the intervening steps of stereotyping and casting a special plate to fit the rotary press cylinder have been entirely eliminated.

Steps in Planography. Let us imagine ourselves in a modern planograph plant and follow the procedure by which copy is reproduced.

The first step parallels the work of the photoengraver. Here is the same large stationary camera, through which all copy must be rephotographed, with or without the halftone screen, depending on whether the tones to be reproduced are continuous or discontinuous. The original copy—photograph, drawing, typewritten sheet, printed sheet, or any combination of type and pictures—is attached to the large copy board of the camera. In rephotographing it will be possible to obtain an enlargement or reduction, as in photoengraving. There is one difference at this point: the planograph operator uses a heavy base film for best results in halftone reproduction and a tough paper film called litholoid for line work. Unlike the photoengraver he rarely needs to strip the film from its base, although occasionally he may resort to this procedure, in which event he employs a thin base film.

The next step is the regular development of the film. Retouching on the film may be done when necessary.

The developed films are now pasted down on yellow opaque paper in a large layout the same size as the zinc plate to which they will be transferred. This layout may represent not one but several different printing jobs, or different pages or parts of the same job, which will be cut apart after printing on paper is completed. For the time being, the purpose of the layout is to utilize completely the metal sheet. In preparing the layout the yellow paper is cut away behind all but the edges of the films, which have been turned over or "reversed," as explained in photoengraving, to avoid the picture being reversed in the final print.

The metal plate used in planography is usually of zinc, though sometimes of aluminum. Unlike the plate used in photoengraving, its surface is not highly polished but has been specially grained so that it will retain moisture. We shall see later what the purpose of this is. The preparation of this grained surface on the zinc is accomplished by the action of abrasives. The sheet of zinc is fastened to the bottom of a trough and covered with a thin layer of powdered abrasive substance and a layer of glass or steel marbles. The trough is then mechanically rocked, so that the marbles roll back and forth over the surface of the metal,

pressing the abrasive into it and creating tiny indentations or scratches. The graining of the litho plate varies according to the abrasives used and the weight and size of the marbles. Its purpose is to create a surface covered uniformly with little wells or indentations for water retention. In addition to graining, the plate is treated to a coat of sensitizer or light-sensitive substance, as in photoengraving.

This grained and sensitized plate and the large layout of films are now brought together in a contact vacuum printing frame, and arc lights are turned on, in order to print the negatives onto the zinc. Where the light, passing through the negative, registers the image on the sensitized coating, this coating becomes insoluble in water. Wherever it has not been exposed, because it was masked from the light by the opaque portions of the negative, the coating remains soluble.

Immediately after printing has been completed, the zinc plate is covered with a special developing ink, which adheres to the coating of sensitizer. It is allowed to dry for a couple of minutes, then the whole plate is washed off thoroughly with cold water. The water carries away the soluble portions of the sensitizer, together with the ink which adheres to these parts. There remains on the plate a reproduction of the image, in ink adhering to the insoluble sensitizer. This ink and sensitizer become a printing surface. The plate can now be clamped onto a cylinder of the offset press. With each turn of the cylinder the plate comes in contact with ink rollers which distribute ink lightly on the image, which then contacts the rubber blanket (or rubber-covered cylinder). This in turn prints the image upon paper.

Theory of Surface Printing. One question immediately arises in connection with planography. How does it happen that the ink rollers deposit ink only on the image, and not on the clear surfaces of the plate, for the zinc plate which bears the image is flat. The image to be transferred to paper is neither a relief printing surface, nor is it cut down into the plate. The thickness of the image produced by the sensitizer and the developing ink was so slight as to be indistinguishable. The answer to the question can be found in the grained surface of the plate. It is recalled that the metal was grained to hold moisture. Grease and water do not mix; they are, in fact, mutually repellent. Now the clear spaces of the zinc sheet, unprotected by the image, are

really masses of tiny reservoirs, which retain water by capillary action, and therefore render it impossible for ink to be deposited. Nor can the water be forced out of these tiny wells, which hold it firmly below the surface of the plate. On the other hand, the greasy ink image furnishes a surface to which ink from the rollers readily adheres.

Planography therefore represents a method of printing, on an offset press, from the surface of a metal plate which holds greasy ink in the printing areas and at the same time water in the non-printing areas.

A. APPLICATION EXERCISES

1. Select two halftone reproductions and two line-cut reproductions from a current newspaper. Mount them on copy paper and indicate briefly on the margin what details lead you to conclude that each is a halftone or a line cut.

2. In the halftones chosen for Exercise 1, indicate whether white or black dots form the palest and the darkest shades.

3. Approximately what line screen would you estimate to have been used for each halftone selected?

4. In each line cut, circle areas which seem to have been "routed" as well as etched.

5. For each picture selected above be prepared to discuss in class any defects of the printed appearance. Point out whether these defects probably resulted from imperfections in the photograph as copy, from the engraving, or both. Point out at least two good points about the reproduction.

6. Select from a current newspaper a halftone reproduction of a news picture which would lend itself to appropriate line-drawing additions for a feature page layout consisting of both halftone and line etching. Use more than one halftone if you wish. Indicate on attached copy paper what line-etching accompaniment might be prepared for this proposed layout.

7. Select from a current magazine a halftone color picture (not rotogravure) and point out how many different plates were used for printing this picture.

8. Find in a circular, booklet, or magazine a photograph reproduced by offset printing or planography. Compare the result with that obtained by halftone.

B. CHAPTER-ORGANIZING QUESTIONS

1. What is there about a photograph or painting that makes it impossible to reproduce it for printing by rephotographing it directly and etching the resultant zinc plate, as is done with a line drawing?

2. Can a halftone be made of a line drawing? Explain why you think a halftone would be more or less effective for printing cartoons in the newspaper.

3. Years ago, many newspapers, the Kansas City *Star*, for instance, preferred to have artists make line drawings of photographs to print with line cuts instead of halftones. What reason do you suppose they had?

4. Explain how an engraver makes a halftone specifically larger or smaller than the original photograph.

5. What is used to sensitize the metal for printing a picture upon it?

6. Why does not the reflected light in the rephotographing process affect the negative equally all over?

7. What is meant by giving a plate a "bite"?

8. Why is a plate not left in etching acid long enough to complete the etching the first time? What is done when the plate is removed after a bite?

9. What prevents the etching acid from eating the back of the plate away?

10. Visualize a sensitized plate in a vacuum printing frame with the negative through which light is allowed to pass. What action does the light have upon the chemical coating of the metal?

11. Explain how a halftone screen is made. Why are the lines etched on the glass diagonally?

12. Where is the screen placed with respect to the picture to be rephotographed, the lens of the engraver's camera, and the strip film?

13. Why is not copper used as extensively for newspaper halftones as it is for commercial work?

14. In making a halftone of another halftone, when the original photograph is not available, why is the screen placed at an angle to the screen in the printed picture?

15. What is meant by making an engraving "type-high"? How is this usually done in newspaper forms? Why need it be type-high?

16. Explain how the different colors in making color halftones are sorted out in making the negatives. Why is a black halftone plate also used in color halftone printing?

17. Why is the screen angle altered in making color halftones?

18. *Suggestion to instructor:* It might be highly illuminating to select a typical local news picture published in a near-by paper which has its own photographers and engraving plant, and ask the business manager to compute the following comparative costs: cost of taking the picture and making the halftone; cost of sending a reporter out to get the facts for it and then to write a sufficiently long story to present a reasonably similar word picture of the news the picture reports, plus the cost of putting it into type and getting it on to the make-up stone beside the cut with its overline and underlines. The managing editor of a metropolitan paper, in an address at the University of Missouri School of Journalism, said the paper would use more pictures "when times get better." Comment on this statement in the light of your findings.

19. What two inventions made possible the modern planograph process? Explain the principles underlying "flat surface" printing. Why is it not generally used by newspapers? Do they ever use it?

Chapter XI

MAKING THE HALFTONE EFFECTIVE; DROPOUTS AND SPECIAL SCREENS

PREVIEW QUERIES

Does the limited dot translation of a living scene into halftone reproduction distortingly restrict news photography as a reportorial art, or does its selectivity *contribute* to art?

Have published newspaper pictures become more simplified in final effect, or more "dressed up"?

What basic effect upon the reader do engravers and retouchers seek in working with high lights and background of news pictures?

What is meant by "dropping out the whites"? Why is the method used in modern newspaper engraving?

What results in the published picture does the engraver seek when he opaques the dot formation in high lights so that they become pure black before the engraver's negative is printed on metal?

What is a cellophane mask for dropouts, and what two advantages does it possess over older methods?

What newer method may replace the cellophane mask?

How may a halftone for real estate or society sections be made so it will print with the effect of a charcoal drawing or a soft pencil sketch?

How may texture or shading be added in the engraver's laboratory to a line cut which in the original drawing had no shading?

ANYONE who follows a news event from the moment of its enactment through its camera coverage and final delivery to the general public as a halftone may feel that to some extent he has witnessed a losing fight. The full color range of the original scene was lost in the restricted gray-to-black tones of the photograph and these probably suffered a new diminution in their translation into the dot pattern of the halftone, so that what finally makes its way onto newsprint seems but a shadowy and vague representation of the original scene.

Yet pessimism about the effectiveness of news photography and black and white halftone are only partially justified. All art implies *interpretation through selection and limitation*, pictorial journalism no less than any other. A sonnet may express profound human emotion, but it must do so in exactly fourteen lines.

A news photograph may carry across to millions of readers the tense drama of the prize ring, the grief of a mother unable to rescue her children from a burning building, the delicate splendor of a garden in spring. The fact that it employs so little means with which to convey so much meaning really *contributes* to the result. It is for this reason that many have rightly felt that the black-and-white photograph is a true form of art.

The earliest of those dealing with newspaper pictures seemed unable to convince themselves that the emotional message contained in the picture was enough. They thought they could make the picture more acceptable to the public by "dressing it up" in one way or another. So the farther back you look in newspaper and in magazine files, the more you will see of fancifully scalloped halftones, intricate hand-drawn borders and ornaments, halftones in ovals and circles or with backgrounds pared away and heads silhouetted against white. The self-consciousness of all this old newspaper art was what made it so bad. Today we save money and get better results. We discard fussiness and seek for effectiveness.

Dropping Out the Whites

We still work hard at the job of enhancing our halftone pictures, but we do not try to pretty them up. The things we do to them are done to *increase their emotional pull.* Some of the methods we employ are carried out in the art department, others in the engraving plant, still others in the composing room or press room, but they are all for the purpose of strengthening the message the picture conveys.

A picture loses some of its emotional force when its pure white high lights are converted into pale grays by the halftone screen. Even the high lights of the ordinary halftone have a dot formation, as we have seen in the chapter on engraving, and these dots which give a grayish appearance to the purest whites of the original glossy print detract from the sharpness of the printed picture. To overcome this handicap and obtain pure white high lights is known as *dropping out the whites* (Fig. 21).

Several methods are in use for dropping out the whites, choice depending on engraving-plant and art-department facilities. In making a choice of methods, economy must be considered as well as the nature of the result desired. The oldest, and also the most

Wide World Photo.

FIG. 21.—Pure white highlights are effective, but cannot be obtained in ordinary halftone engraving. Many methods are used for dropping the halftone dots out of the highlights, and these are becoming increasingly economical.

expensive, procedures for dropping out whites are those which are carried out in the engraving plant, and their cost, which may double or even triple the price of a halftone cut, may make them prohibitive for regular newspaper work. There are ways to reduce this expense for dropped-out whites, and the picture editor will study them over carefully. Even if he never orders dropouts on straight news cuts, he will certainly want them on many feature pictures. If the newspaper has its cuts made by an outside engraving plant but maintains an art department of its own, it will probably be economical to have a staff artist do the work required for the dropouts.

The various procedures for dropping the whites out of a halftone are as follows:

1. *In the Engraving Plant.* When the halftone negative has been stripped onto the plate glass, the engraver opaques the portions that are to be dropped out, by painting over them. In other words, he covers over the dot formation in the high light portions of the picture, so that these portions become *pure black.* When this negative is printed onto the metal plate, the black parts of the negative allow no light to strike the metal, which remains clear. We recall from the last chapter that the image on the metal, in dot formation, is what protects it from the attack of the etching acid. The clear parts, being unprotected, are therefore etched away to a depth below the printing surface.

Another possible method of dropping out whites in the engraving plant is to etch the plate in the regular way, then give the tone portions of the picture a protective coating on the plate and proceed with a further etching until the dot formation in the high lights is destroyed and these portions have sufficient depth. Few dropouts are done in this manner today, both because of the etching skill required and because of the expense.

Even the opaquing of the halftone negative is a job that requires much labor by a high-salaried artisan. The engraving plants themselves are resorting to cheaper procedures, with equally good results on most jobs. For some years a method known as the Bassani process was in favor, by means of which the halftone screen was so manipulated during the exposure that the high-light portions of the negative were blurred or opaqued, instead of showing a dot formation. This screen manipulation, while it opaqued the high lights, also destroyed some of the

tone values of the image and the resulting halftone cut lacked quality.

This brings us to the dropout procedure most widely employed in engraving plants today.

2. *The Cellophane Mask for Dropouts.* A sheet of heavy cellophane is laid over the photograph, and an artist then paints on this cellophane with black paint, completely covering all portions of the photograph *where there is tone*, but avoiding the high lights. The result on the cellophane is a solid black silhouette of the tone portions of the picture. The high-light portions of the picture *remain clear on the cellophane.*

Until recently it was necessary for the engraver to make two negatives in his process camera: a *halftone negative* of the original glossy and a *line negative* of the cellophane mask. In this line negative what was black in the mask became clear, while the clear parts of the mask became black. The line negative was then stripped on top of the halftone negative, so that the clear portions of the line film were directly over the tone portions of the halftone negative, while the black portions of the line film covered the high-light regions of the halftone. This double film was printed on the metal. As the black parts prevented the light from striking the metal, only the tone portions of the picture were transferred to the plate. In the subsequent etching the high lights were attacked by the acid and etched to a depth below the printing surface.

To comprehend this procedure the beginner should keep in mind that the high lights are left clear on the cellophane mask, become black on the line negative because the cellophane allowed the light to pass through and strike the film, but become clear again on the metal because the black parts of the negative stopped the light from touching the plate.

The cellophane mask may be used to drop out a large number of small highlights in a photograph or in an artist's charcoal or pencil sketch. It is also useful as a *quick method of silhouetting figures* against a white background. Here the artist paints over the figure in black but leaves the whole background clear on the cellophane. As a result, the background is etched away on the plate.

The cellophane mask has two advantages over older methods of dropouts. (1) Economy: the "artist" employed to do this

work requires little skill and does not command a salary such as must be paid to an engraver. (2) Better results for most work. The mask is the same size as the original drawing or photograph, and is therefore easier to work with than the halftone negative, which may be a reduction of the original. To opaque the high lights on this reduced negative was a more delicate and laborious task and by no means so satisfactory.

The latest process cameras eliminate the necessity of making two negatives when the cellophane mask is used for dropouts. The mask is now attached to the original along the left-hand edge, much in the manner of a book page, so that it may set down precisely over the image or be flipped back off it. The picture and mask are now placed in the camera, and a double exposure is made on the film. The first exposure is of the original picture through the halftone screen. Then the mask is flipped down over the picture and the halftone screen removed, while a second exposure is made. The black parts of the mask protect the negative from this second exposure, but the clear parts of the cellophane allow the light to pass through and opaque the high lights in the negative. These opaqued portions become deeply etched portions in the metal plate and pure whites in the final printed picture, in the manner described above.

Engraving plants still charge customers high prices for these dropouts, although the use of the cellophane mask and the single negative have greatly reduced the cost of the procedure. Picture editors who do not realize how methods have been simplified may believe that the expense is still justified. They can, however, completely eliminate the charge for dropouts by having the cellophane mask made in the art department and supplying it to the outside engraver along with the original photograph. They will then pay *only the price of a straight halftone.*

When the newspaper has its own engraving plant, working in close conjunction with its art department, it may employ still another dropout method.

3. *Painting Out the Halftone Dots.* The original photograph or glossy goes to the engraver, who makes a halftone negative. Instead, however, of proceeding with the usual steps of the engraving process, he makes a print on paper from this negative and returns it to the art department. This is known as a *velox print* and looks like a glossy except that it shows a dot formation

instead of continuous tone. Wherever the high lights should appear, the retoucher now covers the dots with white paint. In other words, he restores to the picture its pure white high lights, which had been given a slight tone by the action of the screen.

The velox print goes back to the engraving plant and is rephotographed *in line* (*i.e.*, without the screen, since there are no longer any continuous tones). The white high lights photograph black on the negative, remain clear in the printing on metal, and are therefore etched out.

4. *The Amber Cellophane Mask.* A more recent method adopted by some newspaper art departments, to avoid the cost of dropouts done by the engraver, is the amber cellophane mask. This is a sheet of amber-tinted cellophane. It is an overlay, attached to the print along the upper edge at the back and folded down over the face. On it, with white paint, the artist paints the actual spots in the picture that are to be dropped out. The reason for using the amber cellophane is that amber will photograph exactly as if it were black; that is, in the engraver's line negative it would be white, while the white spots the artist painted on the mask would be black spots in the negative.

The engraver can use this mask in a still simpler way. He can lift it off the face of the picture while making the exposure for his halftone negative. Then he can drop the mask over the picture and reexpose the same negative without the halftone screen. The amber (since like black it reflects no light) will not affect the portions of the negative to which it corresponds. These are already in dot structure in the negative. But the white spots on the mask will blacken the corresponding spots on the negative. These black spots will print clear on the metal and be etched out.

5. *The Fluorographic High-light Process.* This, the most recent of all drop-out methods, is the invention of Walter S. Marx, Jr., and is marketed by Esquire Features, Inc., Chicago. We saw how the amber cellophane masked out, or protected, the tone portions of the photo during the second exposure in the engraver's camera, allowing the light reflected from the high lights to blacken the corresponding portions of the negative. The fluorographic method is simpler, for in place of the amber cellophane we have a clear fluorescent liquid washed or sprayed over all tone portions of the picture. The engraver makes a first exposure through the halftone screen. He follows it with a

second exposure, without the screen, but through a filter which stops all light except the ultra-violet rays. The fluorescent liquid which covers the tone parts of the photograph is a powerful absorbent of ultra-violet rays, and consequently reflects none through the filter. The high-light portions of the picture, not being covered with the fluorescent liquid, reflect ultra-violet rays onto the negative, so that after about a minute's exposure the high-light parts have been blackened on the film.

In making wash drawings, the artist merely uses the fluorescent solvent in place of water to mix his paints. For photographs the best procedure is to airbrush the entire picture with the solvent, then coat the high-light areas heavily with Chinese white, which "quenches" the fluorescence of the liquid.

The halftone with dropped-out whites makes a much more striking effect and has stronger emotional pull than the picture which shows a dot formation in the high-light areas. It is widely employed today, both in news column photographs and in feature pictures and advertising illustration.

The engraver and the artist both have a variety of other methods of enhancing the appearance of the printed picture, though the dropout is practically the only one that is applied to straight news pictures. Methods most commonly employed by the engraver are: (1) Use of a *special screen* in place of the ordinary halftone screen; (2) introduction of a mechanical stipple or *technique* to modify the pattern produced by the halftone screen; (3) use of a *Ben Day film* to supply special patterns and shading to portions of the picture.

Methods most commonly employed by the artist are: (1) Use of the *airbrush* to "set back" portions of the original photograph, so that the important parts of the picture will be dramatized; (2) pasting on of *Ben Day papers* to supply pattern to parts of the picture, as required.

Special Screens

Various special screens are employed by engravers to replace the regular halftone screen for certain kinds of work and for variety of effect. For regular newsphotos the straight halftone is best, but for photos to be used in the theater pages, the real estate pages, and the society and other departments of the paper the other screens may give results that are very pleasing.

In wide use is one familiarly known as the "charcoal screen" because at each intersection of the lines on the screen a bit of soot has been placed to blur the pattern. A photograph when copied through this screen takes on the soft aspect of a charcoal drawing. Real estate editors are very fond of this charcoal screen, which can lend charm to the stark photo of a new house or development. Other departments occasionally employ it too, for in combination with dropped-out whites it can turn an uninteresting cabinet portrait into something resembling an artist's soft pencil sketch.

Very fine copper mesh screen (like window screen but infinitely finer) is cemented between two sheets of glass to provide another of these special halftone screens. This is known as the *mesh grain screen.* It gives a result that is harder in effect than the charcoal screen and slightly more mechanical than the regular halftone. The effect is somewhat like that of a picture on canvas or some woven material, for the mesh of the screen produces this sort of texture.

Mechanical Stipples

Many well-equipped engraving plants have their own set of mechanical stipples or techniques, with which they manage to give striking individual effects to halftones. The mechanical stipple is an allover pattern of extremely fine lines, dots, circles, or crosshatchings, which was originally designed and drawn by an artist. The artist's allover design was then used by the engraving plant to make a line cut, and this cut, usually a large sheet of metal about 2 ft. square, is filed away to be employed when desired. The engraving plant may have two or three dozen such mechanical stipples on file.

They may be used in a variety of ways. The simplest is for adding design or "tone" to certain portions of a simple line drawing, as in the case of an advertisment or a cartoon. The cartoon is photographed in the engraver's process camera and a line negative made. The technique or stipple is selected which seems most suitable for the job, the plate or cut of it is removed from the file, and a proof pulled on glazed paper. This proof is now photographed to obtain a line negative, or it may be copied in halftone for a softer effect. The negative of the cartoon is stripped onto plate glass. The engraver now cuts out of the negative of the stipple pieces of film which will exactly fit the

portions of the picture to be shaded with it and strips them on top of the line negative of the cartoon. When this composite negative is printed on metal the stipple becomes an integral part of the drawing.

When such a stipple is used in conjunction with a photograph rather than a drawing, a slightly different procedure is necessary. It is not practical to attempt to strip the negative of the stipple on top of the negative of the halftone. Instead, the engraver copies the glossy print of the photograph through the halftone screen and copies the stipple in either line or halftone, in exactly the same focus as the glossy. As a result he has two negatives of precisely the same size, and, after he has printed the halftone of the picture onto the metal, he surprints on the metal the line negative or halftone negative of the stipple. Absolute accuracy is needed of course to insure that the print of the stipple falls precisely on top of the print of the picture. In the finished picture the stipple pattern will then mingle with the pattern created by the halftone screen to produce an unusual surface effect.

The stipple is copied in line or in halftone in any of these jobs, according as a hard or a soft effect is required. The line stipple will be more striking, but the stipple copied through a screen will have all its fine lines and pattern broken up into a soft dot formation.

Ben Day Screens

Ben Day screens are manufactured by a process patented by Ben Day, New York. Each screen is a plate of hard clear gelatin on which a pattern has been impressed, so that the surface is a fine printing relief surface much like that of a halftone cut. Some Ben Day screens are the exact duplicates of halftone screens, having the same number of lines to the inch as the various halftones. Thus, a 60-line Ben Day screen corresponds to a 60-line halftone screen and a 120-line Ben Day screen to a 120-line halftone screen. The half-tone screen is *not a printing surface;* it is a clear glass with intersecting opaque lines forming openings through which light from the surface of a photograph passes in the engraver's process camera, before it strikes the negative. The Ben Day screen is *a printing surface.* The intersecting lines which cross its surface in two directions are raised lines, so that

the whole pattern, though identical in appearance with the halftone pattern, is a relief pattern. When the screen has been lightly inked, the pattern can be transferred to a metal surface.

In addition to the Ben Day screens which precisely duplicate halftone screens, there are a wide variety of others with patterns similar to the mechanical stipples, except that they are in general finer and more delicate.

There are many uses for Ben Days. The most important are as follows:

1. *To add texture or shading to a line cut.* After the line negative has been printed on the zinc plate, the engraver lays a Ben Day screen, properly inked, on the zinc, and runs a small roller over it wherever he wishes to transfer the pattern to the metal, or rubs it carefully with his thumb to bring it in contact with the metal and thereby transfer it. This transferred Ben Day design then serves to protect the metal from the etching acid and becomes an integral part of the illustration, just as the stipple did.

2. *In combination with halftone.* Sometimes an effective result can be procured by dropping out the background in a halftone and substituting a background in a Ben Day design. Or a Ben Day may be printed onto the metal over the halftone background, to set it back and give greater prominence to the foreground figures, without destroying the background entirely. Combinations of line, halftone, and Ben Day are also possible. Here the line and halftone negatives are combined in stripping, as described in the last chapter, and are printed on the zinc or copper plate, after which the Ben Day pattern is applied where desired. Advertising illustration will employ many more of these combinations than will straight news pictures or even feature pictures. A knowledge of the engraving plant's resources will sometimes enable the picture editor to draw on them in obtaining an unusual and striking piece of "art."

3. *Ben Day screens are widely used for color work.* The colored comics are produced by this means. Color work will be treated in more detail later. Suffice it to say here that in four-color printing a separate cut is made for each of the three primary colors and for black. In each of the three color plates of a comic strip, tone is supplied by printing a Ben Day onto the plate to fill in the outlines of the figures the cartoonist drew. The Ben Days used are duplicates of halftone screens. The original drawing has

probably been filled in with colored crayon or water color to indicate where the yellow, red, and blue are to be supplied. With this as his guide, the engraver transfers a Ben Day to one of the plates wherever it must print yellow, to a second wherever red should be, and to a third for blue. In so doing he is careful to vary the angle of the lines of the screen for each color, so that in printing they will not coincide. Usually there is a difference of at least 30 deg. between the angle of the screen for each of the colors.

The four plates which result from this simplest of all color procedures, if properly inked and printed on paper, one on top of the other, will produce a result familiar to all readers of the comics. The black plate, bearing black ink, supplied the outlines; the red plate carries only a relief printing surface where the red should be and is inked with red ink, of course. Likewise with the blue and yellow plates; each supplies its own part of the picture.

4. *Ben Day pattern may be used for a tint block*, by means of which a single pale tint is printed over a halftone or as a background for lettering. A regular halftone cut is made and a separate cut bearing the Ben Day pattern. The picture is printed in black and white, and the tint, a pale yellow or blue or some other tone, is superimposed during the printing process. Tint blocks are used widely today by both newspapers and magazines.

To summarize briefly, *the engraver enhances the appearance* and effectiveness of newspaper pictures by means of: *special halftone screens* used in the process camera at the moment of copying the original; *mechanical stipples* superimposed on the halftone pattern, at the time of stripping the film or of printing it on the metal plate; and by transferring the pattern from a *Ben Day film* onto the plate after the picture has been printed on the metal. Many of these processes add to the cost of the newspaper cut and the picture editor may decide to employ them only on special occasions. But he still may increase the attractiveness of many pictures by art-department, rather than engraving-department, methods.

Art-department Methods

Every art department sooner or later develops a few special techniques for enhancing photographs. The picture editor

should keep a sharp eye on things here, to make sure that what is done to pictures really improves them. Simplicity is always the best rule. Fancy drawn borders, "gingerbread" croppings, and other fine flourishes should be eschewed. He will, however, approve the use of the airbrush to fade out or set back an unimportant or jumbled background and thereby dramatize the action of the picture or the story it has to tell. As a variation of the airbrush method he may find very important in certain cases the use of a Ben Day paper.

A Ben Day paper is a thin cellophane sheet ruled with fine white lines. The artist gums it down to the face of the glossy print or photograph, then cuts carefully around the outlines of the foreground figures and pulls it off these, leaving it covering only the background. The part of the photograph under the Ben Day paper still shows through, but is not so bold and strong in tone as the rest of the picture. The photograph, thus prepared, is passed on to the engraving plant, where it is put through the regular halftone process. The background tones are all much paler than those of the foreground figures, and the result is a set-back effect.

Instead of fading out the background in this manner, the artist may paste Ben Day paper over a single figure, turning it into a "ghost" for an illustration of a Sunday feature on haunted houses. Ingenuity will suggest many uses for Ben Day papers, but good taste and judgment must decide when they are proper to the occasion. Very often they can increase effectiveness of a piece of feature "art."

A. APPLICATION EXERCISES

1. Select two black-and-white news photographs from any recent newspaper which you believe *contribute* by selectivity to an interpretation of the news depicted, in something of the way a sonnet or short story interprets an idea in limited space and medium. Be prepared to discuss with specific points and reasoning.

2. Select one news picture which you think is inexpertly presented to the point of distorting the news it pretends to report.

3. Take or select an unpublished photograph of an athletic contest or other news event in your town in which effective high lights would inevitably be converted into pale gray by the ordinary halftone screen. Explain in detail how these white high lights in your picture could be largely preserved in published reproduction:

a. In the engraving plant, explaining what mechanical effects would result from each treatment, and why;

b. In the art department of the newspaper.

4. Using the photograph called for in Exercise 3, take a sheet of white cellophane (or if cellophane is not available, a sheet of onion skin or tissue wrapping paper) and fasten it to the photograph in the manner of a cellophane mask. On this mask opaque with black paint or soft lead pencil all portions of the photograph where there is tone, avoiding the high lights. Explain how a competent newspaper art department would accomplish this and what the purpose would be. Explain the earlier two-negative method and the present one-negative method for making a cut with such a cellophane mask as you have simulated.

5. Select a newspicture from a recent paper in which you think a mechanical stipple has been used. Explain how the stipple probably was applied and discuss its effect in the picture.

6. Select from a recent newspaper a picture of which the engraving apparently was made with the aid of a charcoal screen. Explain how this screen is made and explain the effects for which it is employed.

7. Select an advertising illustration or a cartoon which seems to have used a Ben Day screen or Ben Day paper in reproduction. Explain how the Ben Day screen differs from the halftone screen.

8. Select a colored comic strip in which the Ben Day appears to have been used in reproduction. Explain this use.

9. Select two feature pictures from a recent Sunday paper, in which you think a mechanical stipple, cellophane mask, and Ben Day treatment were *not* used, but which would have improved the picture considerably, had they been used. Justify your point specifically.

B. CHAPTER-ORGANIZING QUESTIONS

1. Walter Pater observed that "90 per cent of genius is knowing what to leave out." Remembering is largely forgetting; probably the reason long-past events stand out clearly in our memory is because cluttering details have been forgotten, leaving essentials in bold relief. This is a reason why wise selectivity is an important aspect of art. Many details of a news picture help verisimilitude, but some ranges of color, some dimming backgrounds befog the essential news of a scene, befog indeed the essential beauty, rather than enhance it.

With these points in mind, discuss the artistic values which reasonable limitation and wise selection in photographic reproduction contribute to the art of news picture reporting. Remember, of course, that photography, like every other art form, is a limited medium. Not everything can be accurately depicted with a still photograph. It is doubtful, for instance, whether the rhythm or flow of motion in a ballet can be caught pictorially except with a movie camera. Photographic limitation, on the other hand, is probably far more faithfully artistic than many critics contend.

2. In choosing a method for whitening a background or high light in publishing a picture, what business consideration must be carefully taken into account by a newspaper?

3. How may the engraver effect a dropout by the use of black paint and without using a cellophane mask?

4. How may the engraver effect a dropout without either paint or a cellophane mask? Why is this method seldom used on a newspaper?

5. Explain in detail the two most recent methods used for dropouts.

6. Explain the improvement in process cameras which has shortened the time required in the cellophane-mask methods.

7. How are figures silhouetted against a white background by the use of cellophane?

8. Explain two advantages which the cellophane-mask method has over older dropouts.

9. Explain how halftone dots are eliminated in a published picture by the use of a velox print.

10. What is a mechanical stipple? When and how is it used?

11. Whence the name *Ben Day* screen? Explain the difference between the *surface* of a Ben Day screen and the surface of a regular halftone screen.

12. Explain the uses to which Ben Day screens and Ben Day papers are put in newspaper engraving.

13. What art-department tendencies should a picture editor guard against?

14. What is Ben Day paper? When and how is it used?

15. Suppose the real estate editor of your paper brings you a photograph of a fine new home and complains that because of undeveloped grounds and sheer newness, it looks a bit garish. What special screen could you order used in your engraving department to soften the effect?

16. If your society editor brings you an ordinary cabinet photograph of a very beautiful and socially important society matron, explain how you may order a special screen to secure the individuality of an oil-painting effect in reproducing this picture.

Chapter XII

ELEMENTS OF PAGE LAYOUT; HOW LAYOUT AFFECTS THE ADVERTISER

PREVIEW QUERIES

In what way has increased emphasis upon news photography changed the basis of newspaper page layout?

How do the practical demands of newspaper makeup radically differ from those of advertising or magazine makeup?

Why is newspaper page layout probably due for sweeping major changes?

What specific advantages does the tabloid format possess in modern news presentation? What business disadvantages does it have?

What practical obstacles would a newspaper publisher encounter in adopting the proposed 15-em column "compromise" between the tabloid and standard format?

The stream of news developments and of picture layout requirements during the day bring a restricting conflict. With what procedure may newspaper executives handle this conflict in order to penalize each as little as possible and still make deadlines and keep the composing room and copy desk functioning smoothly, yet economically?

What five different effects may be sought in page layout from which the publisher must choose?

What specific evidence is there that inside pages are too little read for advertising efficiency, and what can be done about it?

THERE is no subject more urgently in need of clarification through a recall to first principles than the subject of layout on the newspaper of today. Elsewhere—in the magazine field and in advertising—much progress has been made toward layouts that are effective, economical, modern. Outside their advertising columns, the pages of many of the newspapers in the country present a spectacle close to chaos so far as layout is concerned. The reasons are not hard to find.

The average newspaper is "put to bed" by writing men and printers. The former has a mind only vaguely affected by

physical aspects of the page. He is conscious of appearance to a certain degree; at least he strives for enough orderly arrangement on Page One to "sell" his biggest stories to the reader. The rest of the paper, daily or Sunday, somehow takes care of itself. The printer likewise is concerned with the appearance of the paper, and he makes his contribution in improved typography. The printer, as a matter of fact, has made his voice heard very strongly in newspaper circles, with all sorts of good results in recent years. There has been a general improvement of the "body type" in which stories are set and of the headline types with which they are displayed. The printer is in a position to improve the *makeup* of the newspaper page. He may suggest better types, better spacing, better use of column rules or their omission.

Outside the newspaper field great printers and typographers have been deeply concerned with more than mere detail: with general form, design, or *plan*, whether of a poster, an advertisement, or a book page. Lately they have been invading the field of the newspaper with insistent advice that "newspaper layout be modernized." Some of this modernization has taken the form of still better typography and still better use of white space and column rules. Fortunately some of it has gone much farther than that—to a radical revamping of Page One, using the elements of which it is composed—head type, halftones, reading matter—in such juxtaposition that the page acquires strong poster appeal.

What Is a Layout?

A *layout* is a *plan for displaying material visually*, for the greatest amount of effectiveness (Figs. 22 and 23). In a book page, the *material displayed* is reading matter in the form of type. In a magazine page, the material may be reading matter and artist's drawings; in an advertisement it probably is a pictorial representation of merchandise, with sales copy and price. Whatever the material may be of which the layout is composed, the thing to remember is that the layout itself is a plan for *visual* effectiveness. The physical form of the appeal in the advertisement causes the reader to *look*, and then to *read*. Because of poor arrangement the ad may never attract him and therefore never be read; its disordered arrangement may cause him to look but not retain its message; or its clear and subtly compelling form may stamp its message into his mind.

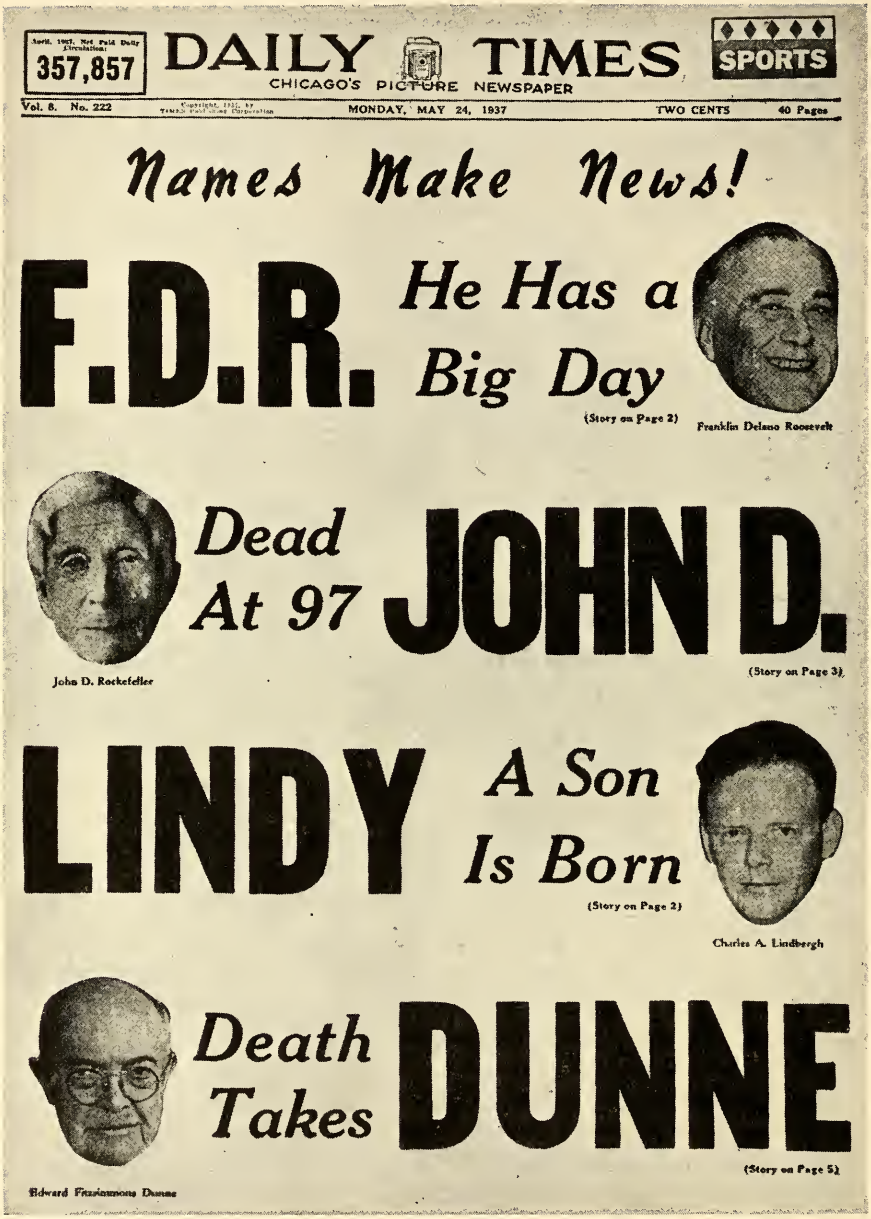


FIG. 22.—A layout is an organized plan of visual display. In the newspaper its elements are headlines and pictures, and on most pages text type and advertising. Note how this layout leads the eye down the page, while tempting the reader to open up the paper.

After all, good layout in advertising and in book and magazine pages is a simpler problem than layout on newspaper pages can ever be. In all these, the material of the layout is fairly static. The artist who sits down to map out an advertisement knows definitely what is to go into it, and so does the man who plans a magazine page. This particular merchandise—or this particular fiction story or magazine article—is to be displayed. Illustrations can be ordered and blocked off into fixed spaces on the dummy. Display and body type can be fitted into the general plan.

The newspaper man makes layouts for material which is much more fluid. He works under pressure of deadlines and runs the chance of seeing his best plans scrapped at a moment's notice for a variety of reasons: a big story breaking, new pictures arriving, late ads that have to be forced into the pages. He must often make layout decisions in a trice that men in other fields might mull over for hours or days. He must frequently do the job in his mind which other men have time to work out on paper. He is called upon to be a mental acrobat in a field about which he frequently knows nothing—small wonder that his performance so often turns out to be nothing but a few awkward and ineffective "stunts." These stunts become the newspaper way of doing things, and the student or newcomer learns and copies them.

To improve newspaper layout we must return to fundamentals. We must be sure we know what the materials of our layout are, and what we are trying to do with them. The average newspaper layout is composed of *reading matter*, *headlines*, and *halftones of news photographs*, with which material must be included on many pages *advertisements* and *cartoons* and *other drawings*.

Page One is of course the "show window" of the newspaper, and as such is apt to receive more attention than any of the others. Yet it is also the page which must be put together most hurriedly, and changed most often. A well-known typographer tells the story of a young woman who followed him into a newspaper composing room, and, after watching him direct the work of putting the front page together, said: "Do tell me, what do you think about geometrical makeup?" He shot her a withering glance and curtly advised her to "Forget it!" Later he used the incident to mark his point that all talk about layout is overdone. You have a certain number of stories and a certain number of

pictures that must go into the page, and, so he felt, you just do the best you can with them.

His point of view illustrates a partial truth which often passes as a whole truth. Obviously, front-page news is not going to be shoehorned into a preconceived geometrical layout, yet most papers have always recognized the need for some sort of a plan for Page One. The sort of plan that was formerly used has been made worthless by the increasing space occupied by news photographs. Front-page "balance" formerly relied on a design created by the arrangement of headlines. The larger and darker head type spotted the page. To make these dark spots of head type fit into a pattern, stories were conveniently lopped off, or jumped to an inside page. The New York *Times* had its characteristic V makeup above the fold, with the bottom of the page as gray as possible. Important heads were placed to make this V pattern, while below the fold only small heads were employed. Other newspapers used arrangements of heads to form an X on the page, or a diagonal line of heads, from right to left, or left to right. Some preferred "horizontal makeup," with several long heads cutting across the columns. To make the dark spots of head type more effective, bigger and better heads were written. Two or three lines of large boldface type were followed by several banks or decks of a smaller size, bigger and blacker than the body type in which the story itself was printed. These complicated heads and decks, which often gave a complete résumé of the story, were intended as much for the reader's eye as for his mind. They provided the weights with which the page was spotted.

Try to fit a few newsphotos into one of these old layouts and you will know why they have virtually disappeared. You may also understand why the obsolete forms of heads-with-many-banks are giving way to the simpler "streamline heads." The fact is that pictures now provide the first important factor in *spotting* that news pages require. The visual effect of type units must work with and not against them.

Format of the newspaper page seems destined to change. Though page size varies considerably today, the average page is approximately 17½ by 23½ in., which is folded in half on the presses. Despite the fact that the reader finds this large size unwieldy for reading purposes, publishers are hesitant about

adopting the tabloid format. Yet, to quote one of our greatest typographers, Douglas C. McMurtrie:

> If a typographer thinking along modern lines were asked to advise on the format of a metropolitan daily, he would recall the creed that form follows function and immediately cut its page size in half, wire-stitching the finished product on the press—an entirely feasible operation.

The function of the newspaper is to present news to the reader, and few can doubt that the reader could take it more conveniently from the tabloid-size paper. There are of course many reasons why publishers do not immediately follow such good advice. Conservatism holds them back from effecting so radical a change in a paper whose appearance has become familiar to readers over a long period of years. There are also more practical considerations. The advertiser who now pays for a full-page display will perhaps buy only a tabloid page—or half of what he now uses—if the format is reduced in size. This might be taken care of by raising the advertising rates, but where there is a rival paper in the same city which continues the large-size format, the publisher may hesitate before making the move. If the advertising and business-office difficulties can be ironed out, he will eventually realize a saving on the cost of paper stock and on labor. Tabloid-size ads, paid for at better rates, will require less paper, less editorial columnage to balance them, and therefore a sharp decrease in composing-room and even in editorial costs. Certainly the smaller size will prove more convenient to the newspaper reader.

Expense is an urgent problem on practically all newspapers today. Quality is of necessity sacrificed to quantity, because the newspaper is in reality giving "too much for the money." Low grades of newsprint are used, and often they all but annul the appeal of news photography. Universal adoption of the tabloid format by publishers might make possible expenditures for better grades of newsprint and so bring the whole solution of the problem of newspaper appearance more nearly up-to-date.

It seemed proper to say a word about page format as a preface to any serious discussion of modern page planning, because format will profoundly influence layout. Problems of displaying material on tabloid and on large pages are very different. Many feel that the large format gives more chance for display of both

pictures and stories. Yet it is a fact that the folded newspaper on the newsstand shows no greater area than does the tabloid. Historically the large format was an outcome of early taxes, not of reader requirements, just as Page One makeup based on arrangements of 1-column heads grew less out of a search for graphic display than out of a lack of mechanical facilities permitting headlines in wider measures.

The folded paper presents problems of display that often are not correctly solved. A newsphoto must be placed so that the part which "tells the story" is above the fold, or it loses its meaning, yet the page when opened out must be well balanced and effective too. Tabloid format has its own set of obstacles. Banner lines in large-size type give a very brief word count. Many of the best photographs of news events are "horizontals" (that is, they are greater in width than in depth), yet the "upright" picture is better fitted to be displayed on the tabloid front page. This difficulty presents itself most urgently when the news picture is so important and dramatic that it becomes worth the *entire* front page. In one instance the New York *Daily News* met the emergency by giving the newsphoto the whole front and back of the tabloid. The Hindenburg disaster was displayed in this fashion.

Each format has its appropriate layouts. Possibly the inevitable trend to the tabloid has been no more clearly illustrated than in the recent effort of the Hearst newspapers to adopt a "quarterpage layout" on the front page. This was based on the fact that the reader of a large newspaper folds it to a fourth its size while reading. Page One was accordingly divided into four units, each of which, when the paper was so folded, would show a complete story or picture.

Many have predicted that a sweeping revolution of format is not far distant, even for the most traditional newspapers. An editor of the conservative New York *Times* declared recently that he foresaw his paper would be a tabloid within the next five years. In *The Changing American Newspaper* (1937), Herbert Brucker, calls attention to the possibility of a format between tabloid and large size. The following is reprinted by permission of Columbia University Press.

We now have just two newspaper formats: the normal size and the half-sized tabloid. Why? Standardization of presses and mechanical

equipment, yes; advertising mats and syndicated material based on the 12-em column; paper sizes and all the rest. Nevertheless newspaper page sizes are accidental offshoots of what happened before, rather than products of a conscious attempt to meet the needs of contemporary living conditions.

Has any publisher in a competitive situation considered how his circulation might benefit if he printed, say, a newspaper halfway between tabloid and standard size, with 15-em columns set in 10-point type, with a layout based on no consideration other than producing a paper that would be desired and eagerly bought? There are, to be sure, ample material difficulties in the way of such a venture. But granted that the end is desirable and profitable, when has it sufficed in this country to point to obstacles, shrug one's shoulders, and go on in the same old way?

Professor Brucker's idea is interesting. Such a format as he proposes would obviate the necessity for a folded newspaper and would permit a better play for newsphotos and greater poster value for the front page. Any newspaper, however, which pioneered to this extent would risk heavy losses in advertising, since both national and local advertisers furnish mats and electrotypes of ads for standard column widths and would be apt to steer clear of so difficult an advertising medium, even if the change were otherwise made possible. On the whole, however desirable such an in-between format might seem, it could scarcely be realized without the definite agreement of a large number of papers to adopt it simultaneously. At present it seems much more likely that the regular tabloid format will gradually gain the ascendancy.

Later in this book types of layouts suitable to both large and tabloid pages will be considered in some detail. Right here one observation should be made. Tabloid layout utilizes less space and must do so more economically. Hit-or-miss methods which get by with the large format will not dō so well with the tabloid, which more nearly approximates a magazine page. Ineffective photography will look more dull in the tabloid, and poor judgment in the play of pictures may prove more disastrous. For this reason it is perhaps as well that the evolution of newspaper format should wait upon the development of more skill in handling pictures.

We have said that newsphotos "spot" the modern newspaper page, providing much of the display and balance that were once

attained by arrangement of heads. It follows that modern newspaper layout springs almost directly from our use of newsphotos.

On the front page, the *play of the news, plus the play of the newsphotos,* determines the layout. The elements out of which the page is built are headlines and body type, pictures and cutlines. To these, as a constant element in Page One planning, must be added the newspaper nameplate. The rigidity of this fixed unit—the nameplate—its typographical appearance, and the space it must occupy sometimes seem a hopeless stumbling block to modern layout with strong reader appeal. The nameplate probably does in most cases occupy too much space. Yet its importance cannot be minimized.

On inside pages of the daily, size and shape of ads and the *play of ads* are first considerations in planning, and newsphotos and stories should be so arranged as to create an effective whole. Getting the reader to *read* the inside pages is the real problem. We shall consider it later in some detail.

On Sunday feature pages, pictures are very often the predominating factor in layout. On daily picture pages and on Sunday rotogravure pages pictures with their explanatory captions are the whole material out of which the page is built.

Pictures, then, are a vital element in newspaper page planning. We may use pictures singly, or we may use them in groups which we term *picture layouts.*

Page Layouts and Picture Layouts

The student should be careful to avoid any confusion in his thoughts between page layouts and picture layouts. A newspaper *page layout* is a graphic form of *instructions to the printer* or makeup man, indicating to him exactly how the type matter, halftone cuts, and advertising are to be put together in page form. A page layout is expressed on a dummy—a white sheet having the same proportions as the newspaper page but usually scaled down to small size, with perpendicular rules to indicate columns. When a picture layout is included in the page layout, its size and shape will be indicated on this dummy.

A *picture layout* is a grouping of pictures. In its practical sense, it is a preparation of picture copy for the engraver. Newsphotos may be cut and pasted down exactly as they will finally appear. If preferred, they may be cropped to indicate what part

of each picture is to be included, and then a separate layout drawn up showing how they are to be combined. This serves as instructions to the engraver. When the picture layout is for a full page, it may be made as a single piece of metal, in which case the layout is a guide for the engraver and no layout is required by the composing room. Such a full-page picture layout may also be made in the form of separate cuts, with captions set into it in the composing room. In this case a page layout must be furnished the printer as a guide in putting the page together.

Page layout and picture layout are too intimately related to be handled separately. On the front page, they call for conferences between the picture editor and the news editor or whoever dummies the front page for the composing room. Obviously, it is impossible to allot space to stories and order headlines written and set, without knowing what important pictures must go on the page and what space they will need. It is as impossible to send through pictures to the engravers, without knowing what the news editor considers the biggest stories of the day and how he thinks they should be played. When the two have agreed on the size of the art that is to be ordered for the page, the news editor blocks this in on his page dummy in proper relative size. He is then prepared to order heads for his big news stories and otherwise plan his page around this art. If he ordered heads without knowing precisely what art there would be, he might find that most of them would have to be reset later to fit the page. Of course front-page makeup is so fluid that the arrival of a new picture that is very dramatic or the breaking of a big news story may cause an immediate revision of plans, resetting of heads, and scrapping of cuts that have been made or canceling of orders to engravers. No matter how often the page is revised, size and form of art must be determined before a page dummy can be properly planned.

On woman's pages, society pages, and sports and other inside pages of the daily, inattention to the fact that *pictures and advertising are the physical starting point of the page dummy* probably costs newspapers huge sums of money annually. An editor frequently has his stories in hand before he has his pictures or can learn what ads will appear on the page. It is important that he get these stories through to the composing room to be set, for if he holds them up the printers will not be able to handle them

in the last rush hours. He scans each story with an eye to its importance and marks it for a head according to its worth. Later the pictures arrive and he orders cuts according to the value of these. Still later he gets the ad specifications and so attempts to dummy his page, but finds that the headlines, ads, and art do not work together; so at the last minute he sends through substitute heads, causing double labor on the head-letter machines. If these heads have to be rewritten at the main copy desk of the paper and if they come through at the time when news copy is flowing, they may be delayed so long that they have to be set in a rush at the time of making up the page. When a number of editors make a practice of handling the matter of page planning so badly, the composing room will maintain a larger regular staff to accommodate them, and so, probably, will the copy desk. Things appear to be running smoothly, but economy is ignored.

A far better procedure for these daily feature pages would be this: Begin a regular flow of copy to the composing room as early in the day as possible, and keep the copy moving. Do not let it pile up, awaiting pictures. Cut the copy to the length you think each story is worth, with a *probable play* in mind for it. Thus, you may have a story which will be the lead on the page, another which will be a second lead, and several other shorter stories. Mark these stories "H.T.K." (head to come). They will go to the copy desk to be read, and the proofs in the composing room will bear the slug for page and story, plus this indication, thus: "Woman's, Dress, H.T.K."

Keep a basket with carbons of all stories, and stamp every page across it with a red stamp *Carbon* so that there will be no danger of the text being reset. As soon as you have your pictures and can plan your art in relations to your ads, take up these carbons, mark them for heads, and send them through to the copy desk without delay. As often as possible the carbon will be handed the copyreader who read the story originally; he will write a head, send it through to the composing room, and destroy the carbon or keep it on a file (but will not send it to the printers). Galley proofs can be used for this purpose when they are available, but the ordering and writing of heads should not be held up awaiting proofs from the composing room. Also, the proofs will be needed at the time of making up the page, so unless a duplicate set is furnished it will be better to hold onto them.

Effects Sought in Page Layout

Layout, we have seen, is the display of material for graphic or visual effect. Before the reader *reads*, he *sees and reacts* to the physical appearance of the page before him. Even what he thinks *after he has read* is subtly influenced by the nature of the display. In laying out a page, then, we must have in mind not only our materials, but the *nature of the reaction we want* from the reader. This will differ widely for different newspapers and for different sections of the same paper.

On a front page we may wish to impress the reader with the idea:

1. That here is a dignified, scholarly, complete, and accurate coverage of events;
2. That here is a brisk, lively, clean-minded paper which is reliable but not stodgy;
3. That here is a sensational coverage of big news, crime, and human-interest stories;
4. That here is dramatic coverage of the biggest story of the day, every day;
5. That here is a news guide, easy for the well-informed reader to keep up with.

Our materials may be the same, but we use them differently according as we wish to produce a feeling of sound confidence, up-to-date progressiveness, sensuousness, boldness of vision, or thoroughness. Each type of presentation has its following: only the publisher can decide which he prefers. It is up to the layout to produce it.

On inside pages, the general nature of the newspaper's appeal must still be kept in mind. Here another factor enters into the problem: *advertising*. Unless a newspaper can produce page layouts which *get the advertising read*, it may find itself without revenue. Little attention has been devoted to this by publishers and managing editors, by picture editors and news editors and others dealing with page layout. Advertisers, however, are frequently aware of the bad service they get in this respect, and it may account for the fact that many of them are turning to other mediums.

Dr. George Gallup, Director of Research of Young and Rubicam, Inc., and head of the Gallup Survey, says:

The number of persons who read a substantial amount of the editorial matter on inside pages of our typical metropolitan newspapers is appallingly low. In one study of Sunday newspapers, it was found that only one person in three had read anything on the average black and white page carrying display advertising. In the same study it was found that the best read news story, picture, or feature below the fold on pages carrying display advertising attracted *only* 13 *per cent* of all readers of the newspaper.

In the daily newspapers, the situation is little better. The typical news story, or feature appearing below the fold on inside pages, seldom is read by 10 per cent of the readers of the newspaper.

Even assuming that one's advertisement gets placed next to reading matter, the opportunities for reaching a very large proportion of the readers of the newspaper is decidedly slim.

We have developed a nation of front-page readers by the simple practice of placing, or at least starting, all news of any importance on page one of our newspapers and by *using the inside pages, in many instances, for dump pages* and for material regarded and treated by editors as of relatively small importance.

I am not arguing that front pages should be made any less interesting; but I am arguing that more editorial thought be given to the problem of *making every inside page as attractive and interesting as possible.*

The makeup of inside pages inadvertently works to keep the readers' attention centered at the top of the page. Typically, all the most interesting stories, features, and pictures appear at the top of the page. Examine the inside page of a metropolitan newspaper and you will discover why so few readers ever bother to read anything below the fold.

I believe that a different style of makeup is called for, one which will make the page more readable and interesting to the reader and one which will not penalize the advertiser.

One of the reasons for the weakness of inside pages of the newspaper is the mental attitude of the "writing man" risen to be news editor or makeup editor or even managing editor. Often such a one has no appreciation of the graphic arts and an inimical attitude toward the advertising which "crowds out" his good stories. He is not picture-conscious, he is not layout-conscious, and he is mentally ad-resistant. He is determined to ignore in so far as possible two-thirds of his raw material.

Page layouts must be built out of *all the material*—reading matter, pictures, and ads—so arranged in relation to each other as to obtain a maximum of reader appeal. We shall return to a discussion of this problem when we are better prepared to study

ways and means of laying out inside pages effectively. The poorly planned inside page is a drain on the newspaper owner's pocketbook. It costs him more to set and print because of wasteful handling; it costs him circulation through lack of reader interest; it costs him advertising by failure to show results.

When we turn to the many different sections and departments of the Sunday paper, other than the general news section, we have an increasing number of page layout problems. If we leaf through a metropolitan Sunday paper we discover that some of its pages are primarily informational; others are there for circulation purposes in that they cater to the interests of certain groups of readers; still others have a purely entertainment motive; and, finally, there are those which exist to draw certain classes of advertising, to back up and strengthen advertising appeal.

The purpose of a page has much to do with its style of layout. A section devoted to scholarly articles on the background of the news, economics, and politics, requires dignity of presentation. A Hollywood feature page requires gay, lively appearance. Society pages should carry some of the glamorous effect that the word "society" implies. Fashion pages should be smartly modern in appearance.

Probably the dullest of all layout work is to be discovered in the real estate, travel, and other special sections existing primarily for the advertising. These include such occasional special sections as Automobiles, Homemakers, Radio, that are printed only once or twice a year. Such sections are largely the work of the advertising solicitors, who have been busy long in advance of their printing, signing contracts for ads. The pictures are often furnished by the advertisers, and much of the copy as well. Once the ads have been placed, cuts and copy are worked into the pages with much more concern for getting them all in than for creating attractive layout; yet good layout might double or triple their "pulling power," and the advertiser has to this extent been imposed upon.

To sum up, *newspaper page layout is a problem of graphic presentation of reading matter, pictures, and ads.* Its form is affected by the *character of the reader appeal desired.* It relies for its results on *typography* that is suitable; pictures or *picture layouts* that serve the desired end; and *proper harmony* between typography, pictures, and advertising.

A. APPLICATION EXERCISES

1. Rule an 8 by 11 sheet of copy paper into 8 columns to represent a layout sheet. Take a current issue of the New York *Times* and lay out the front page on your layout sheet in such a way as to be interesting and conveniently readable to a reader on a subway, who wishes to fold the paper into a quarter-page shape in the crowded car. Try to preserve also an attractive makeup for the new page when viewed as upper and lower half sheets, and also when spread out in full.

2. Select some current metropolitan newspaper outside of New York or Chicago. With another 8 by 11 layout sheet, replan the layout of any one of the *inside* pages to increase its graphic presentation for reader interest.

3. Take a current issue of the New York *Times*. On a layout sheet remake the front page, using, if necessary, news from any part of the paper so as to present "a sensational coverage of big news, crime, and human-interest stories," assuming that such might be the aim of a publisher.

4. Remake an inside page of this same issue of the New York *Times* so as to conform with the sensational makeup policy of your hypothetical front page in Exercise 3.

5. Take a recent issue of the Denver *Post* or of any Hearst newspaper available and lay out a front page, using the news of any part of the issue, to present "a dignified, scholarly, complete, and accurate coverage of events." Strive, however, very definitely for readability and reader interest.

6. Remake any inside page of the paper used for Exercise 5, presenting a makeup harmonious with your proposed front page, yet striving definitely for reader interest.

7. Take news from any one or two recent metropolitan newspapers and lay out what you consider an ideal front page and an ideal inside page for a paper that is "brisk, lively, clean-minded, reliable but not stodgy." (Read Exercise 8 before solving this problem.)

8. For your front page in the exercise above, assume four hypothetical news pictures of the news used. Either make these four pictures into a layout, or use them in two groups or as four separate pictures, and explain how in your makeup they "spotted" the page. Write overlines and underlines for your pictures.

9. Reader-interview studies strongly suggest that the left-hand column of an editorial page and editorials or editorial features which appear below the fold are the least read parts of the page and that editorials at the top of columns two and three are most widely read, regardless of subject matter or style.

With this in mind, lay out an editorial page, using the material which appears on any editorial page of a current issue of a metropolitan paper. Try to make this editorial page so graphically presented that all parts of it will attract reader attention and yet preserve reasonable dignity.

B. CHAPTER-ORGANIZING QUESTIONS

1. Why probably has newspaper page layout lagged behind newspaper typography and the enhanced reader interest of news and feature content?

2. Why do special editions, which carry unusual amounts of advertising, often impose upon the advertiser in the result?

3. Distinguish between a *page* layout and a *picture* layout.

4. What is the primary purpose of any newspaper layout?

5. What are the physical materials of newspaper layouts?

6. What two conditions in daily newspaper procedure work against conformance with a fixed geometric plan for page makeup?

7. What changes in newspaper emphasis have altered the former principle of front-page balance?

8. What visual relation should be maintained between type units and news pictures?

9. What is meant by the principle of art, "Form follows function"? Does this principle favor the tabloid or the standard size of newspaper?

10. Give the names of two books by Douglas C. McMurtrie.

11. What result might the change to tabloid size have upon the users of full-page advertising? What problem would it present in the writing of banner heads?

12. If publishers should come to agree that there is sufficient merit in 15-em columns set in 10-point type presented in a format halfway between tabloid and standard sizes, what would one publisher among them have to do before making it practical to adopt this change for his newspaper?

13. On inside pages of a daily newspaper, what is the first consideration in planning the makeup from the standpoint of the business office?

14. On woman's, society, and sports pages, what makeup materials constitute the physical starting point of the page dummy?

15. The Montreal *Star* was the first newspaper in North America to develop to a high degree of reader appeal the makeup and coverage principle of "dramatic coverage of *the* biggest story of the day, *every day*." Explain in some detail what you understand this principle to be. (It is much more than using a daily banner with a 2-column "break " in 10 point.)

16. How do society page layouts frequently fail to live up to the principal reader interest which the word "society" implies? In what way is this true also of fashion pages?

Chapter XIII

ELEMENTS OF PICTURE LAYOUT; KINDS OF INTEREST AND DISPLAY

PREVIEW QUERIES

In recalling large news pictures or several pictures published in a layout, can you distinguish between what picture editors call "simultaneous effect" layouts and "centralized interest" layouts?

Can you distinguish between the effect and use of a "sustained interest" layout and a "progressive interest" layout?

Remember the last half-dozen news pictures you saw published? Would you describe their impression on you as one predominantly of communication or of decoration?

What is there about our human makeup and experience which causes us to be sensitive to balance or lack of balance in a building, room furnishings, or a picture layout?

What would you understand to be meant by the expression "safe balance"? "Dangerous balance"? Which do you find more arresting to look at?

Can you recall a news picture layout which suggested motion, not with respect to the content of the picture, but with respect to the pattern of the layout?

What four forms of movement can you see in the physical world which have counterparts in picture layout patterns?

Suppose news pictures arranged in the form of a straight band across the top of a page appear with the left-hand picture narrow, the next wider, the center picture widest, the next like the second, and the fifth as narrow as the first. What form of motion in the physical world does such a layout suggest?

NEWS pictures are communication, not ornamentation. We no longer use them to dress up pages, but we use them to get a message over swiftly to the mind of the reader. An actor putting a thought across the footlights injects into it a dynamic quality, a motion and driving force which will carry it over and without which his words will fall dead at his feet. The same dynamics are needed in the newsphoto layout if it is to *tell* its story to the reader's eye, and not just mumble it. The graphic arts axiom that "*form follows function*" applies as well to the

picture layout as it does to the whole newspaper page. A picture, or group of pictures, may be only a part of the page, but they are the part on which the eye at once focuses. They are therefore the greatest instrument in producing reader reaction to the page.

The editor who orders a picture layout has a definite idea of the effect he wishes it to produce upon the reader. There is a variety of effects at which a picture alone, or a picture layout, is aimed. Most important among these are:

1. *Simultaneous Effect.* The purpose of this effect is to strike directly at the reader's emotions with a bold, unified idea—horror of disaster, pathos of hunger and poverty, fury of lynching, triumph of a hero. The simultaneous effect is sought when the purpose is to *move deeply as well as inform.* It is the single blow between the eyes which, to use a slang phrase, is meant to "knock the reader cold." It is the *big spotlight.* This single sharp dramatic effect may be obtained by using only one newsphoto—the right one, of course—blown up large enough to dominate the page. One compelling picture of a burning steamer, an airplane crash, the bombing of a city, carries stronger emotional appeal on the front page of a paper than a group of smaller pictures could ever do. It is rightly the method most often employed for big news on Page One.

Another form of simultaneous layout which has high emotional value is the *photomontage,* in which a number of striking newsphotos are cut and fitted together or otherwise combined so that they form just *one unit.* Each individual shot contributes something to the total effect of the photomontage, but in such a way that the whole creates a single impression on the reader's mind. Photomontage takes time and skill, and for this and other reasons it is better suited to other parts of the newspaper than it is to the front page.

2. *Centralized Interest.* This type of layout usually conveys *information and atmosphere,* rather than strong emotion. The picture that "takes the spotlight" tells the story of an event—the signing of an important bill by the President, the dedication of a local monument—and the pictures grouped with it are needed to provide color and background. The event picture must dominate, so that the reader's eye takes in the story first, then passes on to the others.

The centralized interest layout is also indicated for the personality story told with pictures, and in this case it conveys to the reader's eye *personality and background.* The picture in the spotlight is, say, that of an actress who is in the news, in a candid shot which is blown up large enough to permit the reader to catch something of her personality. The pictures grouped around this central one may show her at golf, in her dressing room, or promenading with her pet poodle, and the layout as a whole will strive to reveal what manner of person she is.

Centralized layout must not become confused. By the word centralized we do not mean to imply symmetrical arrangement, for this would seldom do, but we do mean that *one picture in the layout carries the central theme* and the others must be subordinated to it. Usually, only two or three subordinate pictures will be used, and their arrangement involves no sequence.

3. *Sustained Interest.* It may happen that a single picture cannot be selected which tells an event properly, but several pictures grouped together will do so. This may be because of the character of the event, the nature of the pictures themselves, or the failure of the cameraman to get a shot which tells the story. There are several popular winners, or opponents, in a political race, or a local concert will feature three Metropolitan opera stars and a famous violinist; no spotlight interest is inherent in such ideas. The event may concern an airplane crash, and the photos that have been serviced are all inadequate in dramatic values, yet several of them grouped together tell the story where no one of them could stand alone. It is the opening day of school and the cameraman has brought back a feature series taken at various school buildings, but the whole group is needed to make it the story of opening day. The news of the day is represented on a daily picture page by an assortment of shots of many different events. In all these presentations the sustained interest of the reader is desired.

4. *Continuous or Progressive Interest.* Layouts known as "continuities" are much in vogue. They are pictorial exposition. Like written exposition, they may carry a high emotional content, but their purpose and function are *to explain.* How an automobile is made, how women's fashions originate, how a child spends its day in our city slums, how the city gets pure drinking water: these and a million other subjects make good picture continuities.

They belong on picture pages, in Sunday rotogravure, and in the picture magazines—practically never in news pages.

The problem in the continuity layout is to catch the reader's interest, then give him a detailed account through pictures. Generally his interest can be captured with one dramatic shot played much larger than the rest. Once his eye is attracted to the layout, he must be able to follow readily a *sequence of smaller shots*, which do not vary too greatly in size and which are so arranged that the thread of the exposition runs naturally through them. To aid in this the pictures themselves, or the captions under them, are frequently numbered. This is preferable to confusion, but is not always necessary. Every feature subject is not a subject for a continuity. The picture editor may have before him a fine group of shots of children at local playgrounds, of local society matrons in their gardens, of office workers hurrying home in yesterday's cloudburst. These are often roughly styled continuities, but they are ideas which require no explanation and involve no progression. They are sustained interest layouts; variety of size and shape will add to their appeal, and they *should not be numbered*, since there is no sequence.

Before deciding what general type of layout to employ, the picture editor must know what his purpose is. Is it to cast an emotional spotlight on a big news story? Is it to inform and interest? Is it to explain? According to the answer, the same group of photographs might conceivably find their way into a photomontage, a centralized layout, a sustained interest layout, or a picture continuity. The editor, say, has spread out before him photos taken in and around a great steel plant, and he is debating what to do with them. Before deciding, he considers the circumstances:

1. *A labor battle has taken place* outside the plant, and ten men have been killed in the fighting. He wants to stun the public with the idea of violence. He chooses the most startling picture and gives it the big spotlight, alone, on the newspaper's front page, referring the reader to an inside page or to the daily picture page, where the best of the remaining pictures are used for a layout with sustained interest. Later on, in a Sunday feature reviewing this same event, he may obtain a new and smashing emotional effect by working the same pictures into a photomontage depicting the horror of labor conflict.

2. *The workers in the steel plant have just signed an agreement with the owners.* Here is a picture of the president of the company and the labor union chief bending over the contract. The shot is *news*, and must be given an important play, but it may be wise to group some of the other shots around it to lend color and atmosphere.

3. *Yesterday's paper carried the story of rioting* around this plant, but the public is still interested. No smash emotional effect is possible, but the best pictures, grouped together, have a sustained interest that makes them worth using on an inside page.

4. *Peace has been restored for some time* in these steel mills, but the present group of pictures were taken because the public, reading daily stories about steel workers, have become interested in the story of steel. They want to know how the great steel girders for our bridges and skyscrapers, the rails over which our trains ride, the chains that hold our great ships at anchor, are made. The picture editor selects a series of shots which explain the open-hearth process, or cable making, or chain making. He can find in this one subject alone material for several fine continuities. He may put over the idea of mass violence in a photomontage. But he does not use the photomontage to tell the story of steel, for it cannot give a progressive explanation. For the latter it is necessary to have ample caption space and an orderly arrangement.

Different kinds of layouts, then, serve definite functions, and it is a mistake to believe that they are interchangeable. The experienced man chooses the layout that answers his purpose best.

Display in the Picture Layout

So far we have considered certain types of layouts which answer specific needs, but we have mentioned *form* in layout only in a very general way. The artist painting a picture thinks of form as the subtle balance which exists between the various elements in his composition. The man designing a poster or an advertisement knows that the manner in which he *displays his materials*, balancing white space with reading matter, or type with illustration, will determine the power and effectiveness of the appeal.

Picture layout has its own methods of achieving balance and display, but they are very similar to the methods of the poster or

ad. Considered from the standpoint of display, there are only two possible forms of picture layout: the symmetric and the asymmetric. They differ simply in the kind of balance they achieve. This is strictly in accordance with all the rest of the graphic arts.

What Is Balance? Balance, in itself, is a property of the natural world in which we live, to which the human eye has become irrevocably devoted. It is a sort of visual assurance that things are not going to topple over. We glance at a skyscraper, and, despite its loftiness, we sense in its visual proportions that it will not be dashed to earth by the power of gravity. Furniture, the clock on the mantelpiece, all the useful objects of everyday living, provide us with this same visual assurance. If balance does not exist in something the eye lights upon, we feel unhappy and insecure. We subconsciously resent the lack of it, even if there is no real danger. On the other hand, we are so accustomed to balance all around us that we are apt not to notice it at all, so long as it is undisturbed.

If we see balance which is both true, yet delicate and precarious, we feel instantly surprised and thrilled. The leaning tower of Pisa is more amazing than a skyscraper. The ice queen who glides on a single shining toe through maneuvers that resemble the flight of a bird gets far more attention than a beautiful woman standing still. We like to see the laws of gravity "almost defied" but we are very unhappy if they are really disobeyed.

There are, then, two kinds of balance in the natural world, and two kinds of visual balance in layout: safe balance and dangerous balance. Both are correct; the latter is far more arresting.

Symmetric Layout. The symmetric layout has vertical balance. If a vertical line or axis is drawn through its center, the shape and pattern of the part of the layout on the left of the line will be the same as the shape and pattern of the part on the right.

Symmetric picture layout is static in effect and is only suited to pages where the subject matter requires great dignity of treatment. For this purpose it is often good because it suggests calm dignity and authoritative writing. It insures the readers' confidence and respect, and, if only used where appropriate, it can provide a healthy contrast with asymmetric layout on more lively pages. Opposite editorial pages and the pages of serious comment in the Sunday paper frequently make use of it.

Symmetric layout has the firm balance of an architectural design. Its appeal is the silent appeal of the handsome building façade, substantial and reliable. It does not, however, have the "pulling power" of the asymmetric form.

Asymmetric Layout. The asymmetric layout has its axis off center. It has *balance with motion*, and this is precisely the quality that is sought in the best poster and advertising art. Of course the papers of the country are full of picture jumbles which have their axes off center, yet have no balance, precarious or otherwise. The beginner may wonder how he may *know* when the right result has been achieved. There are those who will try to give him rules for it, but he will find these are not practical. He has a rule within himself in his instinct for visual equilibrium, and the more he relies on it the better trained his eye will become.

Tolmer, French author of *Mise-en-page*, a book which made history in the advertising field, likens asymmetric balance to the art of the tightrope walker. "It cannot be expressed as a purely mathematical calculation," he says. "The tightrope walker steadies herself with her parasol rather than with the aid of a formula." Feeling is the best guide to the rightness of a layout of newsphotos. In a simple grouping of two or three pictures, *oblique feeling* is the quality that gives life and motion. Where pictures are separated by type in a page layout, we may achieve the kind of balance known as the "principle of the steelyard," a large weight near the fulcrum balancing a small weight at the end of the beam. The equilibrium of a very large picture and a quite small one, in right relation to each other, can be most effective.

When we discussed the essential qualities of newsphotos earlier in this book, we found they were personality value, news value, and action. Cameramen go to all lengths to get action *within* the photograph. In grouping newsphotos into layouts, we must always bear in mind that *action layouts make the surest appeal.*

Variety in Asymmetric Layout. Monotony is the bugaboo we have to fight in picture layout. Nobody gives any particular attention to the flagstones in a pavement, the bricks in a building. Nor does anyone bother to glance at the pictures on a Sunday society page which week after week comes out with the same tiresome arrangement of circles and squares or oblongs and ovals. Many a newspaper picture layout is so *usual*, so dreary and dull and everyday, that it represents an investment without returns

to the publisher. On the other hand, we must not seek the bizarre in layout on news pages, for exaggerated effects would detract from the appeal of the advertising and would not work into the general page plan.

Layouts for inside pages on the daily must usually consist of very simple asymmetric arrangements of two or three pictures so placed as to balance advertising. Where the advertising runs strong, any layout may be too much, yet a single newsphoto may be effectively placed. Tilted pictures may give a feeling of motion on a feature or fashion page, and the white space created by tilting will enhance the action value. "Give your layout more air" is a bit of advice frequently heard, and it is not without meaning.

On sports pages and woman's pages of the daily we can always give imagination a little looser rein than elsewhere in the paper, but nowhere should we admit dullness or monotony as the solution of our picture problems. We may have to run the heads of five local businessmen, but we can find a better way to handle them than as a straight strip of five 1-column cuts. Monotonous layouts make a dull paper that nobody reads or cares about.

Column Widths Important. One "monotonous detail" of the daily paper we must adhere to rigidly; that is the column width. If we plan layouts that break into parts of columns, type will have to be reset to fit around them, and this is impossible under rush conditions. No matter what arrangements we decide on, the outlines of the layout must break even with the columns, except in the case of a mortise that can be used as a caption space.

In planning most of the Sunday pages this rule will also have to be observed. Sunday magazine and special feature pages often can disregard it. If the layouts are planned far enough in advance the type can be set in odd measures to fit around the pictures. Here is a problem that the editor must discuss thoroughly with his composing-room or mechanical superintendent, so as to know what layouts may gain the variety of a freer form.

Unity in Picture Layout

The reverse of monotony is variety and contrast. If all the separate pictures in a layout have the same size and shape, it becomes monotonous, even if we get away from the static

arrangement of these "building bricks." To achieve contrast we crop the various pictures to different sizes, and perhaps to different shapes, always of course, being guided by good taste.

Now, if we are making a layout of a number of pictures, and we vary their sizes yet keep them all pretty close, we will discover on looking our layout over that there is something radically wrong with it. It appears disordered. A layout in which nothing predominates lacks unity. It is like a regiment of soldiers scattered over the field without a commander. If we choose one picture—the most striking if possible—and give it a large spot, the whole aspect of the layout changes. It now "hangs together."

Any full page of pictures, such as a daily picture page or roto page, needs a *dominant picture or a dominant shape, to give it unity.* Even a layout of two pictures is apt to be more interesting if one is larger and one smaller. If there are as many as three, one should dominate, unless all are fitted into a shaped layout.

Sometimes a daring unity can be achieved in a picture group by the mechanical method of striking a white or black line across the layout to emphasize its direction and hold the separate pictures together or by giving the picture group as a whole a strong directional sweep. *Strong lines of head type* cutting across a layout or jutting into it may give it a unity it did not have in itself and completely remove the monotony of several pictures the same size and shape. It must always be kept in mind that head type spots the page just as pictures do, and that it can be tied into a picture layout effectively to create pattern. Unity then, depends upon dominant picture or dominant pattern.

Shapes for Pictures

In making up a layout, shall we crop every picture a different shape, for variety—some in circles, others in squares, still others silhouettes of the human figure that lope nimbly across the ingenious pattern we have devised? Many an editor does just that and really feels he has achieved something because the leg of the bathing girl swings nonchalantly across the skiing scene in the Alps, in his layout for the travel page, or because the fist of a senator has been outlined with white against a strike scene.

We get a lot of variety in layout that is plain bad taste. The worst of it is, *it costs money* to do these amazingly ugly jumbles of

odd shapes and silhouettes. They call for expensive engraving. The best shapes in which to crop pictures are those suggested by the simplest geometric forms. Among these, the circle and the square are the least interesting. The oblong, whether used horizontally or vertically, has more interest because of the variety inherent in its dimensions. Oblongs mortised into one another gain variety of shape and serve also to tie the layout together.

Shape, in a picture layout, may be approached from two different points of view. *The individual pictures may be cropped in contrasting shapes*, such as ovals, trapezoids, oblongs, and triangles, and then assembled into a whole; or *shape may be a matter of the layout as a whole*, and the individual pictures may be made to fit into this shape, once determined upon. In the second instance, it is interesting to observe that every group of pictures fitted into a layout of predetermined shape is *not a photomontage*, although many on newspapers regard it as such. The true photomontage is the group of pictures which produces a single unit impression on the reader's eye, communicates one thought.

Layouts which show variety in the shapes of their individual pictures and those which mold all their pictures to a given shape can both be effective if properly employed. The layout with variety of individual shapes probably owes its appeal to *this factor* rather than to a sense of pronounced motion in the layout as a whole. The method is suitable to large or small layouts. There is, however, a danger that the shapes chosen fight each other instead of working together. Too many shapes in the same layout will produce a sense of wild confusion. Some editors seem deliberately to strive after this very thing, on the assumption that it gives the feeling of "trashiness" to their display which will attract readers who like sensation and lack taste. Yet even sensation can be more effectively presented than by this method.

Layouts with separate shapes must keep these harmonious. The best way of doing this is not to choose shapes which are too dissimilar. Straight-line forms such as oblongs, triangles, and trapezoids work better together than they do with circles and ovals. Even the most discreet combination of ovals and oblongs has a "Victorian gingerbread" appearance to the modern eye. There is a place in layout for circles, ovals, and ellipses which we are about to discuss. For the moment, let us remark that modern feeling scarcely tolerates them in the layout which bases

its appeal on variety of picture shapes and uses as well straight-line forms.

Layout with Pattern

Much of the best modern layout achieves unity by the second method described: that of molding the individual pictures to a general pattern and outline. There is a reason for this. The greatest feeling of motion can be achieved when the whole picture mass "moves" in a given direction. When such a layout is surrounded by the gray of type matter on a printed page, its effect can be almost startling. For this very reason it is better suited to feature pages than to news pages, where it may detract from advertising. In full-page picture layout, one unit of the page may have pattern and the rest of the pictures provide a harmonious background, as, say, a broad diagonal band cutting across the page. A layout with bold pattern is apt to create white space, and this should not all be filled in with type. White space is important; otherwise the layout will not move as we intended it to do.

The danger in a layout with pattern is that the editor has first conceived of a form for it, then hacked and murdered the poor pictures to make them fit. *Newsphotos must be cropped with respect for their internal pattern of outlines.* They must be cropped so that what each one has to say is not injured. The wrong way, therefore, to do a layout with pattern is to decide on the form of the layout, then look for the pictures. When we do this, we may be obliged to pass up the best pictures because they refuse to be cramped and jammed and distorted into our mold. *The right way to proceed* is to find the best pictures available for the layout idea we have in mind, then spread them out before us and, by studying them, wait for the pattern idea they may themselves suggest. Good pictures have a way of whispering layout ideas to the wise editor. And sometimes they do not whisper—they yell. In no other manner are bold, smart layouts born.

What Kind of Pattern? The form we are seeking for the patterned layout is one which suggests motion. The newspaper which ran a group of pictures in the form of a mammoth candle on its anniversary front page was not producing an example of fine layout. It was merely doing a stunt. Stunts grow tiresome

if repeated often, but motion in the pattern of a layout is invariably interesting.

Motion in layout takes its hunches from motion in the everyday world. Go out and look around you, and you will discover there is:

1. Motion in straight lines;
2. Motion in an arc, the whole or part of a circle;
3. Motion in an ellipse;
4. Motion in wave form.

You will find the counterparts of all these forms in the best layouts in modern publications. The first gives the straight diagonal arrangement of pictures, or the layout with strong diagonal feeling.

Layout in the form of an arc, or portion of a circle, has two advantages. It suggests motion, and, when the circle in its entirety would be one extending far beyond the borders of the page, it leaves it to the imagination of the reader to complete the geometric image. This "unfinished" quality is what gives strong appeal to any art, for it draws the audience into the performance, providing action and insisting on reaction.

The elliptical form of layout, with its ends to the edges of the page, has this same unfinished quality and great adaptability as well, for the artist can vary the curve of the ellipse to suit page requirements, space, and pictures.

Rhythmic or wave motion in a layout must be of a broad, generous kind, not the gingerbread scallops with which artists once adorned the edges of their newsphotos. These were intended as ornamentation and were distracting. Photos may be arranged to suggest a wave line when a number of them are combined in a good-sized layout. The wave line, running off the page, has the same unfinished quality as the arc or ellipse, with the added notion of rhythm.

The idea of rhythm may be secured otherwise than by a wave line. A full page may be horizontally divided into bands of unequal width suggestive of rhythmic motion, and these may be entirely pictures or alternate bands of pictures and type matter (Fig. 23).

A picture layout across the top of a page in the form of a straight band may be so divided by perpendicular lines as to

The Tale of Glenn Frank in Story, Pictures on Pages 8, 9

Weather

The Wisconsin State Journal

Home-Final Edition

VOL. 149, NO. 96. 98th Year. MADISON, FRIDAY, JANUARY 8, 1937 24 Pages ★★ ★★ Price Three Cents

Frank Fired in Thundering Tumult

Story, Pictures on Page 2

Strikers Storm Capitol, Hear Phil

Story, Pictures on Page 7

'Unjust!' Phil Answers Accusers

Story, Pictures on Page 5

Sellery, Acting Chief, Calls Faculty

Story, Pictures on Page 7

FIG. 23.—There's rhythm and strong emotional pull in these alternating bands of head type and newsphotos. The page is designed to "sell" the paper, and to lure the reader into inside pages which carry ads as well as important news stories. Readers who stop with Page One are a cause of poor advertising results.

suggest rhythm. The rhythmic wave may be either whole or half. In the first instance the picture on the extreme left of the band would be narrow, the next wider, the center picture widest, the next like the second, and the fifth as narrow as the first, completing the wave. More is left to the imagination if the crest of the wave is at the extreme right, each successive picture from left to right increasing in width.

In all his approach to patterns for picture layouts, the newspaper artist must keep his feet firmly on the ground and his head somewhat below the clouds. He is not seeking amazing page decorations, but merely strong, dynamic ways of talking to the public with pictures. Weird and complicated shapes and outlandish presentations have no more place in the paper than have fine phrases and flourishes in the reporter's story. Simplicity is always right, but it can be simplicity that is dynamic and purposeful; it need not be stupidity.

Dimension in Layout

If the reader will refer to the chapter in which we discussed the copy values of newsphotos, he will recall that one of the things we were most anxious to obtain in a picture was the "three-dimensional factor." The eye is accustomed to seeing things in the outside world, not as flat surfaces, but as objects having *depth* as well as length and breadth. Light, producing contrasts of tone, was the agent, we noted, which gave us this three-dimensional illusion within the picture.

Today, dimension is coming to be recognized in layout as well as in photography. Advertisers have been using three-dimensional display for a long time; type designers have invented several interesting dimensional type faces which are very popular. Magazines are giving a third dimension to many of their illustrations, and slowly, newspaper picture editors are beginning to think about it too.

Methods of obtaining third dimension are so easy and the result so effective that it seems worth while to give the matter careful thought. A newsphoto may be made to appear as if mounted on a block by the simple expedient of painting a wash border around two sides of it; or it may be given a "shadow" by the rapid use of a crayon pencil. More will be said about this technique in the next chapter.

Sometimes it is necessary to use a photograph of a document or of a handwritten letter in a newspaper layout, and the three-dimensional treatment will greatly enhance its effectiveness. In general, newspaper picture work has been too flat, and it might be well to watch for the opportunities which may present themselves of giving it three-dimensional appeal.

Texture in Layout

Earlier in the book we discussed many methods of enhancing the halftone cut, by dropping out the whites, by using special screens and Ben Days. In planning layouts, the picture editor may discover that he can increase appeal of a group of pictures by the use of special "textures." Often he can make a photograph serve where formerly the newspaper hired a portrait artist or fashion artist to do the job, provided he has this knowledge of textures at his command.

A photograph of a prominent man or woman, if reproduced with a charcoal screen and dropped-out whites, will look very much like an artist's charcoal sketch. If a copper mesh screen is employed by the engraver, the result will look like a portrait done on canvas. Fashion "drawings" may be secured by enlarging fashion photographs made in local shops, to page length if desired, and then reproducing the figure as a cutout or silhouette, with special screen and dropped-out whites. Thus engraving devices may be made to realize economies to the newspaper and increased variety in the appeal of picture copy.

A. APPLICATION EXERCISES

1. Procure copies of six different issues of two or more metropolitan papers which use pictures extensively. Clip, paste, label, and bring to class for discussion, examples of the following layout effects: simultaneous, centralized interest, sustained interest, and continuous or progressive interest. If you are certain that any one of these layout effects is lacking in your collection of papers, imagine a concrete example of the lacking layout and describe it on a sheet of paper.

2. Assume that your paper has just won a 5-year campaign for a municipal water softener against political opposition. News of the proposed installation has been printed with spot pictures of the signing of the contract, etc. Describe one or two continuities which you, as picture editor, might send a photographer to get, to appeal to a broad interest which doubtless has been aroused by your paper's campaign and the news of its victory.

3. Clip a picture layout which lacks unity, giving the effect of confusion. Explain how, by eliminations or rearrangement or both, this layout might be improved.

4. Clip two layouts which show good unity of effect.

5. Clip a layout which illustrates symmetric balance—what advertisers and artists often call "bisymmetric arrangement." Explain in writing where the axis of balance lies.

6. Clip two examples of asymmetric layout, often referred to as "occult balance." Explain where the axis of balance is here, and what actually constitutes the balance. Explain whether or not motion is suggested by these layouts.

7. Clip an asymmetric layout which you feel is extreme and bizarre. Explain why this is not good.

8. Clip or describe two asymmetric layouts which attain interesting variety and avoidance of monotony but which still are in good taste.

B. CHAPTER-ORGANIZING QUESTIONS

1. Explain how the art principle of "form follows function" can apply to picture layouts as well as to the whole newspaper page.

2. What is a photomontage?

3. Why is photomontage usually unsuited to the front page?

4. What kind of sustained interest layouts are sometimes mistaken for and published as continuities or progressive interest layouts? Why should sustained interest layouts not be numbered?

5. Explain what asymmetric balance in a picture layout is and how a picture editor should train himself to recognize its proper attainment.

6. Explain why the effect of depth in a picture layout is important and explain two ways in which it may be achieved.

7. What practical limitation does the column-width factor in newspaper mechanics place upon the picture editor in devising layout?

8. What is meant by the expression, "Give your layout more air"? Describe an effective instance of following this advice.

9. What can be done in planning layouts for Sunday magazine and special feature pages which cannot, for practical reasons, be done as a rule on news pages?

10. What *mechanical* method can be employed in a picture group for achieving unity?

11. In cropping pictures to secure variety of shape in a layout, what caution must be observed?

12. Should the form of the layout be determined before or after the pictures for that layout have been selected?

13. What is meant by "a picture layout with a pattern"? Distinguish between a stunt pattern and a valid pattern.

14. What is meant by rhythm in a layout pattern, and in what ways may it be attained?

15. How may certain layouts be given added appropriate appeal by using special "textures"?

Chapter XIV

MECHANICS OF PICTURE LAYOUT; METHODS OF PREPARING COPY

PREVIEW QUERIES

What "tools" does a newspaper picture layout man use?

Under what conditions may a picture editor send two or three photographs to the engraver without drawing up a layout, even when he intends to have the pictures published according to a layout plan he already has in mind?

What is the advantage of pasting pictures down to form a layout *before* sending them to the engraver's?

Why is a pastedown layout usually made larger than the position it is to occupy in the printed paper?

What is a mortise in a picture layout? What practical considerations in newspaper layout control the size and dimensions of mortises?

How is a camera lucida used in making layouts?

How is transparent paper used in making picture layouts?

VERY simple equipment is needed to prepare a newsphoto layout for the engraver. The layout man uses a drawing board, with T square, triangle, and ruler. Usually he employs a logarithmic table to help him in scaling pictures or scales them by the simple method described in Chapter VII. In his worktable drawer, at the right of his drawing board, will be found hard and soft pencils and charcoal pencils, a mechanical drawing pen for ruling lines that are to be reproduced by the engraver (those serving merely as guides are drawn faintly in pencil), a speed-ball pen with which he can also draw lines of even thickness, and perhaps straight-nose pens for hand lettering. His dividers will serve him for many purposes, and his beam compass will be indispensable for drawing large circles. He will have on hand large sheets of good-quality white Bristol board for drafting his layouts and a large pad of transparent tracing paper.

The paints he employs are opaque water colors known as "showcard colors." For layout with ordinary newsphotos only Chinese white and lampblack are needed; these are combined to

obtain tones of gray. Camel's-hair brushes in varying sizes will be needed for use with these colors, and in many cases the artist will mix them to the tone he requires and apply them with the airbrush.

Layout with Separate Cuts

In the simplest form of picture combination, where only two or three photos are used and none of them require enlarging or reducing, the artist may find it unnecessary to draw up a layout for the engraver, although he himself has it in mind. In such a case he merely indicates on the backs or margins of the glossy prints how they are to be cropped and mortised, so that the resulting separate cuts will fit into one another as he desires. Thus the engraver will not see what the final pattern is to be, but the plan of the layout *must* be carefully given on the *page dummy* which goes to the composing room. Each glossy print will bear a number or a slug and the same number or slug will be written where the picture is to appear on the page dummy. The separate halftones will then be fitted into the proper pattern by the makeup man.

The advantage of this procedure is that it often saves expense, because the small cuts entail no waste of metal in the engraving, whereas an irregular layout may. The irregular layout is charged for at higher rates. The disadvantage of separate cuts is that they seldom fit together quite so neatly as if they had been made in a single piece, and if one of them slips during the stereotyping process the result is a bad-looking job. If the pictures used are to be fitted together to form a strip or rectangle, no engraving costs are saved and it is better to paste the prints down together, so that the engraver can make them into a single cut.

Pastedown Layouts

For the pastedown layout a large sheet of white Bristol board is attached to the drawing board with thumbtacks at the upper corners. The position of the card is trued by sliding the T square to its upper edge to make sure that it is horizontal.

For a full-page layout an oblong having the same relative dimensions as the newspaper page, not including margins, is blocked off with light pencil lines. Vertical lines may also be lightly drawn to indicate columns. In other words, a page

dummy is outlined on the Bristol board, in accurate proportion but usually a little larger than page size. The artist must know what its relation to actual dimensions is or he may produce a layout which is impracticable. Page size for this purpose is the measurements of the page in the metal form in the composing room. Dimensions must not be taken from the printed newspaper, as there has been slight shrinkage in stereotyping. Check with the printer to get sizes right.

If the layout is for a page where columns may be entirely disregarded, it is better to disregard columns, for these only interfere with freedom. If any advertising is to appear upon the page then column widths must be taken into consideration.

Most of the pastedowns made for the daily are several columns wide (but less than full-page width) and a third or less of the page in depth. The artist decides whether his glossy prints need enlarging or reduction, and accordingly determines on a measure which will represent the width of a column and draws lines on the Bristol board to indicate the number of columns he requires. If the measure he chose was twice actual column width, then the layout will have its total width halved by the engraver, and the whole layout will thus be reduced to a fourth its pastedown area. If the column widths on the Bristol board are *actual* dimension, then the layout will be neither enlarged nor reduced. The engraver will take the penciled column lines as his indication of the number of columns required and will focus his process camera to obtain a halftone of that number of columns in width, allowing the depth to take care of itself. Of course the artist must keep the final depth in mind, or he may produce a piece of art which cannot be used on the page. Usually the artist uses large glossies and makes the layout on a larger-than-actual-size scale, because reduction will sharpen the prints, hide retouching, and refine all the work he has put on it.

In the pastedown, prints are not merely marked with crop marks. Each print is cut with a sharp knife to the desired shape and pasted in its proper place with rubber cement. This procedure probably ruins it for further use in the newspaper. Therefore, if it is a shot which may be wanted again and if the newspaper does not have the negative, it should be copied and *a special print made for the pastedown.* Here the supervision of the picture editor

will prevent waste. Some pictures will never be wanted again and are not worth copying, but others that come in from the news picture services are valuable additions to the picture morgue and ought not to be lost through careless use in pastedowns.

The whole pastedown layout can be enlarged or reduced in the engraving process. If the separate prints are not in the proportionate sizes *to each other* that the layout man desires, then he must ask for new prints, enlargements, or reductions before he goes to work. He may indicate with crop marks a portion of a print which is all he desires to use, then have the photographers copy and enlarge *this portion only*, giving him a print of a specified size to fit into the pastedown.

The layout as planned may show a combination of pictures which leaves mortises of less or of more than column width. These need scrutiny. Perhaps they will make suitable spots for captions or cutlines. Perhaps the white space adds to the effect of the layout and does not need to be filled, or perhaps the layout needs to be revised because these are really awkward "holes." A mortise of less than 6 picas in width is too narrow to carry cutlines. A mortise over a column wide, and not too deep, may be a good spot for cutlines; but if it gets to a width of over 18 picas, the layout man must remember that small type is hard to read in wide measure and should have this factor of his problem well in mind.

If the mortises at the bottom of the layout are of column width, or multiples of a column, they represent no problem because stories and headlines will fit below them naturally. A story with a 2-column head will slide up into the 2-column mortise; a 1-column head into a 1-column mortise; or a story with a 1-column head and another with a 2-column head will fill the 3-column mortise. Page planning with such a layout is greatly facilitated, and for this reason the artist is usually careful to see that the lower edge of a small layout does not show mortises in odd measures which cannot be filled.

The pastedown method is often used for photomontage, sometimes fairly successfully, sometimes crudely, with white lines separating photos that have been cut and tortured into position. The best photomontage is one which blends all photos indistinguishably, to produce a unit impression. (Fig. 24.)

Pastedown Layout with Inserts

In making his pastedown, the artist may be pushed for time and may wish to use one of the photos either larger or smaller than the print that has been furnished him but may not have time to ask the photographers for a new print. In this case he pastes down the other glossies, but where the missing print is to go he paints in a solid black area on the Bristol board, representing the exact space to be filled by this print. If the entire picture is to be enlarged or reduced to this area, the width and length on the layout must be proportional to the original print. The artist may indicate with crop marks on the print that only a portion of its width is to be taken in and that a portion of the top of the picture is also to be cropped away, but he cannot determine the precise cropping of the picture as to both width and depth, unless he has scaled it very accurately to make sure that when enlarged or reduced it will precisely fill the area allotted to it in the layout.

When such a layout goes to the engraver, he photographs it as a whole. He then copies the insert picture, focusing so that the portion between the crop marks will give the width of the insert, as indicated by the black area on the layout, and taking in as much of the picture as is necessary to give the depth indicated for the insert. In stripping the film onto the glass, this insert negative is stripped into its proper place with the rest.

The pastedown layout is used where refinement of art work is desired, and for this reason the insert is a makeshift rather than a proper procedure. If the artist has all the prints before him in their true proportional sizes he is in a better position to turn out a fine job. The effects he obtains may be only those of careful arrangement of prints that are light in tone and others with much darker tones, so that balance and harmony are secured. He may paste them with edges touching, or he may leave narrow white spaces between them. He may crop one into another or crop two prints as matching semicircles, which pasted close to each other form a single circular shape in the layout. When all his pictures are pasted down, he may give the layout direction or motion by cutting a very narrow channel across the layout with his knife, removing the narrow strip of glossy to leave the white Bristol board. A white line produced in this fashion is finer and

Art work by S. F. Perkins.

FIG. 24A.—Photomontage, step one. Several photos, preferably separated in the layout, are pasted in position on Bristol board. Their edges, and areas where other photos will appear are airbrushed with lampblack, with provision for a certain amount of overlapping when the remaining pictures are in place. The result is *rephotographed* to obtain a large glossy print which looks like this illustration.

Art work by S. F. Perkins.

FIG. 24*B*.—Photomontage, step two. Several more photos are pasted down on a second sheet of Bristol board ruled to the same outside layout dimensions, and are then handled according to procedure described under step one. Measure each picture with a ruler and note that it is larger than the space available for it in the final photomontage. This permits overlapping, and blending of the images.

Art work by S. F. Perkins.

FIG. 24*C*.—Photomontage, step three. The remaining pictures for the layout are pasted down on a third sheet of Bristol board, airbrushed and rephotographed as already described. There are now three large glossy prints, corresponding to *A*, *B*, and *C*. These prints are used by the photoengraver to produce a single halftone negative, by means of three successive exposures on one film in his process camera.

cleaner than one which might be painted on with a camel's-hair brush.

Many newspapers still employ pastedowns with rules drawn in India ink to serve as ornamentation and to "tie the pictures together." The New York *World-Telegram* is a good paper to study for this effect, which it uses on most pages. The lines are finely drawn and the ornamentation so slight as probably not to distract attention from the halftones. Nevertheless the modern mood is away from this sort of thing. Present-day taste is inclined to demand that the halftone tell its story with a minimum of "prettying up" and that layout effects be achieved by bold cropping and juxtaposition of prints rather than by any fanciful additions. It is just a return to the first principle that the best art accomplishes its effect with the greatest economy of means.

If layouts are used at all on the front page, they are usually kept severely formal. The reason is that too bizarre a play of pictures would distract the reader's eye from the news headlines. On feature and on inside pages layout ideas have more leeway. Here a striking method of cropping, a geometric arrangement, a nice contrast of tone values, or a bold method of achieving balance of weights within the layout, with a sufficient amount of white space, may make all the difference between a layout that attracts the reader's eye to the page and one which he literally never sees.

All-insert Layout

Often the artist must prepare very hastily a layout which includes a number of pictures. The prints he has are not in the proper sizes; some require reducing and some enlarging for the best play of the picture material. He would like to take just the central figure of this one and blow it up to three times its present size. This other print will stand reduction to a fourth its size, etc. He therefore draws up with pencil a layout having the precise dimensions of the final art work and indicating precisely the final outside measurements and mortises of each separate photograph.

On the back of the photographs (or on their face with Chinese white) he indicates *approximately* the cropping of the picture which he desires and which he thinks should result in mortises of the right dimensions, but he leaves the niceties to the engraver.

Art work by S. F. Perkins.

FIG. 24*D*.—Finished photomontage. Each of the three glossies was placed in identical position on the copy board of the photoengraver's camera. At each exposure several images were registered on the negative, but the lampblack masked the negative elsewhere. As the pictures overran their spaces, double exposure occurred around their edges. This photomontage ran as front page of the Special Articles Section of the Washington *Post*, Sunday, December 25, 1938. It carried the caption "Peace on Earth, Goodwill to Men."

When the engraver copies each print in his process camera, he focuses to obtain a picture with the exact dimensions for which the layout sketch calls, even if in so doing he must take in a slightly larger or smaller area of the picture than the crop marks indicate.

He then strips all the separate negatives onto the plate glass, with the layout as his guide. He cuts the various films away to the mortises called for, and if he is accurate in his work the layout should fit together as neatly as if the artist had done a pastedown job. Like the pastedown, the whole layout will then be made as a single piece of metal.

Offhand it would seem that this procedure was cheaper and faster than the pastedown. It certainly takes less of the artist's time. It takes less of the time of the photographers too, for they are not called upon to make enlargements or reductions of the pictures to be used. It avoids the necessity of cutting up valuable pictures which may be needed later on but which must be fitted into the pastedown. However, do not forget that the engraver is a high-salaried technician. Whether the newspaper has its own engraving plant, or whether it uses an outside firm, it will pay more if it allows the work on its layouts to be done by the engraver rather than by a staff artist. The picture editor should know what the relative costs are in his town.

Sometimes a large layout, such as a daily picture page, should not be made as a single piece of metal, because it is desirable to remove some of the early pictures on the page and replace them with later news pictures in the various editions of the paper. The artist will in this case draw up a layout similar to the one just described. He will scale every picture and crop it with light pencil lines on the back, showing the exact position of mortises. Where there is enlargement or reduction, he must be very careful that he has allowed for it in the mortises; otherwise his cuts will not fit together. His layout should show dimensions in inches of each cut; *i.e.*, breadth and depth where these are greatest, and breadth and depth of each mortise. Then, if he has made any mistake in cropping which would throw the page out, the engraver will be apt to rectify it in making the cut. Each cut in such a layout will be a separate piece of metal, and a dummy must therefore be furnished the composing room so that the page can be put together. Each picture will bear a general slug which

indicates it is for the picture page and a number or letter corresponding to a number or letter for its position on the dummy. Thus a picture slugged *Pix Pg* (1) will go in the spot marked (1) on the dummy. When substitutions for such a page are sent through for later editions, they must be for fixed positions in the layout. A cut 4 in. wide by 6 in. deep with a 2 by 2 mortise in the lower right-hand corner can be replaced only by one which measures the same and has the same mortise.

Sighting the Dimensions

An experienced man does not always need to scale a large print carefully to discover what its dimensions will be after reduction. Suppose he has a print before him which measures 8½ by 11 in. It shows a central figure of, say, a rider on horseback leaping a hurdle. He wants to show this figure as large as possible, by cropping off some of the print at each side, but he also must reduce the picture to 4 in. wide.

With his paintbrush he puts crop marks on each side of the figure on horseback, as close as he thinks advisable. He also puts a crop mark above the figure. The width between the crop marks at the sides will be reduced to 4 in. by the engraver. The artist lays the picture on his board and holds above it his ruler. He closes one eye and moves the ruler closer or farther from the print, until the 4 in. on the ruler exactly cover the width between the crop marks. Then, keeping the ruler at the height at which he has it, he turns the print around on the board so that he can measure it lengthwise. He now sights the length, from the top crop mark to a point at the bottom which includes the essential parts of the picture. Say 6 in. on his ruler cover this; that means that 6 in. is a sufficient depth for the picture when reduced. He puts no further crop mark on it, but sends it through to the engraver with instructions to make a 2-column cut, 6 in. deep, as cropped. If the picture is part of a layout he blocks in a space 2 by 6 in. to take care of it.

"Sighting" is often the easiest way of fitting a large picture into a layout. If, on the other hand, the artist has a rather small print and wishes to enlarge it in his layout, he may simply lay it down on the Bristol board with the top and left edges where he wishes them to be in the layout, then lay his ruler diagonally on it, from the upper left-hand to the lower right-hand corner. At any

point along the diagonal marked by the ruler he can mark a dot and complete the oblong, which will have the proportions of the picture when enlarged.

Sighting with a Camera Lucida

The modern well-equipped art department may be provided with a simple but amazing little instrument called a "camera lucida," as a help in making complicated layouts. A good one will cost about $30, though there are very much cheaper ones on the market. The camera lucida is clamped to the edge of a table on which the Bristol board for the layout is placed. It consists of a thin vertical rod and crossarm which extends over the layout and which holds a small lens in the form of a prism. When a photograph or drawing is held in front of this lens at a short distance, the lens reflects it onto the layout, so that the artist, looking down on the Bristol board through the lens, can with a pencil trace out the whole picture or any part of it he desires to use. By moving the picture farther away or closer to the lens he can get a reflection on the layout which is a reduction or an enlargement. Seeing it exactly as it would appear, he is better able to decide how to crop it or combine it with other pictures. If he wants to use one figure out of a photograph and silhouette it in his layout, he can sketch onto the paper the exact shape of the silhouette in any size he decides is good and then proceed to group his other pictures around it. The camera lucida has a magnifying glass which can be inserted to procure still greater enlargements, and it permits the artist to try out many different layout combinations with ease. A silhouetted figure drawn into a layout in this fashion serves as instructions to the engraver, who makes a silhouetted halftone of the proportions indicated.

The instrument can be useful for many layouts which combine charcoal drawing or other sketches with photographs. It can increase the artist's speed and originality in handling many kinds of layouts, including those for advertisers, which are often handled by the newspaper art department as well. In using the camera lucida it is convenient to have an upright stand or frame to which photographs and other art may be attached with thumbtacks. This can be placed on the table and moved back and forth so that the artist can study the effect of enlargement and reduction of pictures.

Layout with Transparent Paper

A sheet of transparent tracing paper is often a great help to the artist who is making a large layout involving a number of photographs which must be enlarged and reduced and cropped into one another. The transparent paper is the same size as the Bristol board. It is laid over the Bristol board, on which the dimensions of the layout have been outlined and thumbtacked with it to the drawing board. The outlines of the layout are traced onto it.

The artist then selects a photograph which he thinks would look well in the upper left-hand corner of the layout. He raises the tracing sheet and fits the picture up into the corner of the outlined frame. Then he pencils onto the tracing paper the outline of the picture as he wishes it to appear. He can crop or mortise it by simply drawing his line around the part he wishes to use; he can enlarge it by placing his ruler diagonally across it and marking a larger corresponding oblong on the tracing paper; he can mark a cropping first, then enlarge this on the tracing paper.

When he has allotted to the first picture the space he thinks best, he withdraws it and takes up a second and slides it under the tracing paper. He may decide to place this one lower on the page and let its upper left-hand corner mortise into or cover an uninteresting lower right-hand corner of the first picture. He therefore outlines an oblong on the tracing paper which cuts into the first oblong. Now he has an unfilled space above his second oblong. He looks for a picture which would do for this spot, proceeding as before, until the layout is entirely filled.

As each picture is withdrawn from under the tracing paper it is marked with a number or letter or slug to identify it and the name is written on the paper and later copied onto the Bristol board. The artist blocks in caption spaces with each picture and must not forget that these are an essential part of the pattern, and that their positions must be such that the reader sees at a glance to which picture each caption refers.

When the whole layout has been completed on the tracing paper, the artist goes over it with a pin or the point of his compass, sticking this into every point where two lines intersect, so that the Bristol board below will be perforated with a small but visible pinhole. He now removes the tracing paper. By ruling lines between the pinholes on the Bristol board, he will reproduce

the layout. In so doing, he modifies to the extent of showing the outlines of the pictures as they will appear when mortised into one another, leaving out the extra lines where the oblongs intersect. Most rotogravure pages are laid out with tracing paper in the manner just described.

A. APPLICATION EXERCISES

1. Clip from a metropolitan paper two groups of pictures for which no formal layout needed to be made. Indicate what instructions probably were put on the photographs of this group when they went to the engraver. On a sheet of paper show what instructions probably went to the makeup editor which the engraver did not see.

2. Either select five 5 by 7 prints or cut five 5 by 7 rectangles of copy paper to simulate prints, indicating on each paper a line or two describing hypothetical pictures for a *centralized interest* layout. Assume that you are going to use one "spotlight" picture larger than the others. Make a 6-column pastedown layout on Bristol board, indicating mortises for cut-lines. Indicate what the exact depth of the cut made from this layout will be.

3. Suppose that, in making the layout for Exercise 2, you have one print which needs to be enlarged before you can use it in its proper proportion in the layout. Assume that you have insufficient time to wait for an enlargement to be made. Indicate with an extra piece of paper what you would do about this, without delaying delivery of the layout to the engraver.

4. Suppose you wish to make a layout in which all the prints to be used need to be copied in different dimensions. Make a layout for an engraver, indicating instructions for each of three hypothetical pictures, which would not require your waiting for new prints to be made.

5. With eight photographs, or pieces of paper cut to simulate photographs, prepare a 6-column *progressive interest* layout on Bristol board with the use of transparent paper.

B. CHAPTER-ORGANIZING QUESTIONS

1. List the materials which the newspaper picture layout man needs.

2. When individual prints for an intended layout are sent to the engraver without being accompanied by a layout, where must the intended layout be indicated?

3. What disadvantage is there about grouping separate cuts?

4. If certain prints to be used in a pastedown layout with cropping may need to be used again and the negative is not on file, what can be done about it?

5. How may direction and movement be given to a layout with the use of a knife? In what way is this method superior or inferior to the use of a brush?

6. In what situation is a pastedown layout with inserts indicated? Explain what happens in the engraving room when an insert for a layout is called for.

7. Explain precisely how dimensions of a print may be fitted into a layout by sighting with a ruler.

Chapter XV

TYPE IN LAYOUT; STANDARDS OF TASTE, MODERN TYPE TREATMENTS

PREVIEW QUERIES

What modern change in taste finds response in the comparatively recent Tempo, Vogue, and Metro type faces?

In recent picture layouts you have seen, how do the headlines and underlines succeed or fail in directing the eye or framing the layout?

How may news heads of the same column width be arranged on a page so as to avoid a static effect and contribute instead to a diagonal feeling?

Since an attractive picture layout will help absorb the dull appearance of unbroken gray type which may surround it, what five simple devices may an editor use to liven his page body type?

Examine a picture layout on a printed page. Do you think the underlines should be in light or in boldface? Should the overlines be in as large type as the main news or feature heads on the page? Why?

Look for a few underlines for single pictures or layouts which are not centered immediately under the pictures: flush right, in a mortise, in a half-column measure beside the cut, or double printed on the picture. What superior or inferior effect do you feel there is in these instances to an orthodox placement under the cut?

HOWEVER satisfactory a picture layout may be in itself, its final appeal for the reader will be determined by the manner in which it is combined with other elements on the page, with headlines and body type, with the overlines and underlines which complete the story the newsphotos have to tell.

An expert typographer may consider printed words only from the standpoint of the beauty of the design of the letters which comprise them. A writer may consider words only for their meanings and be insensitive to beauties or crudities of type design. A layout artist may see words only as dark and light blotches on the page, spots of gray and medium gray and black tone that create a pattern for the eye, which works either with or against the pattern of the halftone cuts.

The picture editor may be neither a great typographer nor a great writer nor a great artist, but he must have some knowledge of all these things and he must learn to respect words for all three of their values. For cutlines that are badly worded, type that is badly selected, and pages that are not well "spotted" will cancel his best picture effects. It is not the purpose of this book to deal with the subject of typography, except to point out some of the essential relations of type to pictures.

Emotional Values of Types

Just as halftone reproductions of newsphotos speak to the reader through tone values which tell him a story and play upon his feelings in one way or another, so type has emotional values too. Some letter designs are as elegant as a gentleman in tails, others as rugged and rough and wholesome as a man in overalls. Some types have the streamline swiftness of a high-powered airplane, others the delicacy and refinement of a society belle. Advertising designers are very careful, if they know their trade well, to pick the type which has the right emotional value for the merchandise they are displaying.

The newspaper layout man is much more restricted in his choice of type faces than is the advertising man. His paper probably has its headline style and headline type rigorously determined. No great leeway is or should be permitted here. The problems of type that arise will be matters of modification and adjustment, selection of cutline faces that accord with heads, better arrangement of type on the page, etc. Many newspapers today use Bodoni headline type; others use the equally beautiful Goudy; and still others are adopting a type dress consisting of one of the sans-serif type faces, which satisfy the modern mood for purism, for extreme simplicity and lack of ornament in type forms as in many other things.

Both Bodoni type and Goudy type, as the student of typography undoubtedly knows, are modern adaptations by the famous type designer Frederic W. Goudy, based on classic roman letters. The sans-serif types (or letters without serifs) are "thinned down" or refined versions of another old-fashioned letter: Gothic. They are "new" in the sense of conforming to new tastes. The first of the sans-serif letters was Kabel, designed in Germany in 1923 and representing a complete break in tradition for German

readers from the old Black Letter. Since 1927 there have been several American versions of Kabel, or refined Gothic, the better known of which are Tempo, Vogue, and Metro, cut by different foundries but all essentially the same. These faces all show a bold, medium, and light, giving the necessary variety for newspaper headline and general purposes. There are also some still more delicate Gothic faces, suited to advertising and feature needs but not to news purposes, and there are the beautiful Gothic faces recently designed by Lucian Bernhard, which might serve many special functions in picture layouts.

Whatever head type the newspaper uses, cutline type will be selected to harmonize with the general type dress of the paper. Headlines and cutlines will be so placed as to strengthen the picture layout by directing the eye toward it or by framing it or "backing it up" in one fashion or another.

Head Type and Pictures

News heads are so dummied into the page that they contribute to the general motion of the layout, that they intersect or "point to" the pictures, and that their bands of black provide a framework which offsets the halftones. Some makeup men get a very static arrangement of heads by dummying heads of the same column width under one another. A 2-column head placed lower on the page than another 2-column head will look better if, instead of intersecting the same 2 columns on the page, it begins at the middle of the one higher up and extends a column beyond it. If heads are used on the page in this "interlocking" fashion they will contribute to diagonal feeling of the picture layout on both front and inside pages. (Figs. 30, 31, 32, 37*A*.)

A group of newsphotos is helped by a head which juts into it or intersects it at some point along its depth, for the line of head type will serve the graphic function of *pointing to the picture*, even though it does so without the reader's being consciously aware of the fact. A boldface headline or long head across the top of a page may "tie up" visually a picture group on the left with one on the right, making the page layout a unit instead of an arrangement of separate spots. Some newspaper front pages are now using alternate banners in boldface and in lightface type, and such black and medium dark bands can provide an interesting element in the whole layout. The point is that the picture editor

should cultivate an eye for the ways in which the heads affect the picture presentation.

Body Type and Pictures

Recent years have brought much improvement in designs for body or text type. Most newspapers now use faces with well-rounded letters which are even in weight, easily read, and do not "fill in" in printing. Body type visually provides the background for the pattern made by heads and halftones. Yet too much gray type on a page looks dull and uninteresting. Sometimes, too, the body type looks so small and hard to read that the eye is repelled. Over a period of years there was a tendency to decrease the size of type in order to print more news. Now there seems to be a trend in the opposite direction, for the sake of readability.

Whatever size body type is employed, it can be given variety of appearance by using some full-face or italic paragraphs, and by breaking it with subheads, by indents, initial letters, and asterisks. It should never be allowed to look like a vast gray waste on the page, and when it does even the most attractive picture layout will take on some of the air of surrounding dullness.

Cutline Type and Pictures

Picture layouts make use of two forms of cutlines: (1) the *overline,* in fairly large type face, across the top of the picture group or serving as a heading in two or three shorter lines at the top; (2) the *explanatory caption,* sometimes referred to as an underline because it is placed under each picture in the layout or under the layout as a whole. This explanatory cutline may often be placed at the side of instead of beneath the picture. There is one rule which must be firmly observed. This is that the *relation of cutline to picture be obvious to the eye.* Nothing is so annoying as to have to search wildly through a picture group in order to determine which caption or cutline is meant for which.

Cutlines Need Strength. Since cutlines form an integral part of the picture layout they must have certain qualities. They should be strong enough, not to provide a separate spotting for the page, but to *blend with the rich tones of the newsphoto.* Lightface body type used for explanatory captions (unless strengthened by a run-in sidehead in a bolder face) has a washed-out

appearance in layouts for newspaper pages. Usually a little larger type than is used for text, in full face, will look best for captions. For overlines a regular head type will be used, not so large as heads on the page.

Choice of Harmonizing Type

Without attempting to give all possible type selections for modern newsphoto layouts, we might point the way with a few possible choices. If the newspaper uses Bodoni boldface heads on the front page and other news pages, 1- or 2-column pictures will take an overline in 18-point Bodoni boldface italic and 3-column layout an overline in 24 point. Captions on news pages will look well in 8-point boldface of the body type or may be raised to 10-point boldface. On the feature and woman's pages of such a paper, variety may be obtained by using lightface Bodoni for regular heads, and putting standing feature heads and column heads in the lightface of one of the new square-serif types based on the old Cheltenham. These will accord better with Bodoni than would a sans-serif letter. Several foundries are making these square-serif letters, under the names Karnak, Stymie, and Memphis. If these heads are used on the page, along with Bodoni light heads, then the picture layout may use a Bodoni italic lightface overline and underlines in 10-point lightface of the square-serif.

Similar choices would be made for a newspaper which used Goudy heads. Goudy boldface captions in 10 point would look well on news page layouts, with overlines in 18-point Goudy boldface italic for 1 or 2 column pictures; 24 point for 3 columns. For a paper using a sans-serif head letter, the overline will be in the *oblique* of this (it is improper to speak of the italic of a sans-serif type) and the captions may be either in sans-serif medium boldface, in 10 point, or in the boldface of the body type used.

Search for Originality

Sometimes the picture editor feels that he needs a type out of the ordinary, to provide a striking heading for a column or a fashion layout or for a big feature-page layout. He may call on a member of the art-department staff to do a little fancy hand lettering. All types were "hand lettered" at some time or other,

both in their ancient traditional forms and in their modern adaptations, but the work was done by men who were consummate artists in their field. A newspaper may have a typographical genius in its midst, but all too often it has not. So much of the hand lettering we see is vulgar or tawdry in taste. Freaks of the hand letterer's imagination, tearing across the page or surrounded by weird boxes and borders, mar many a layout of really striking pictures. The remedy is to oblige the letterer—when lettering must be done—to follow one of the fine type faces to be found in any of the modern type-specimen books.

Before resorting to hand lettering the picture editor should make sure that the composing room has no type suited to his special purposes. Many faces which are carried because advertisers occasionally call for them will prove useful to him at one time or another. Some are as free and flowing as any hand lettering, yet properly proportioned and harmonious as well. There are the cursive letters, resembling handwriting; there are letters made with a brush stroke that are extremely informal in effect; there are the three-dimensional letters that have proved so dynamic in their appeal and that are now used only in advertising. If the newspaper does not have them, they can always be copied, for the type books invariably give the complete alphabet. They will help give distinction as well as originality to feature layouts employing newsphotos. So as to be aware of the resources at his command, the picture editor would do well to obtain some of the standard type-specimen books and study them carefully. He might keep in a drawer of his desk the books of the Linotype Company, the Intertype Company, the Ludlow Typograph Company, the American Type Founders, and the Monotype Company. Out of these he will get ideas for faces that fit many kinds of layouts and that are superior to hit-or-miss hand-lettered lines.

Placing Cut Captions or Underlines

The proper type face for cutlines is important, but the placing of the cutlines can also do much to increase the effectiveness of a newsphoto layout. When the layout is uneven across the top, a strong overline, with enough words in it to reach from the left to the right edge of the picture group, will often help to create a unified effect.

Cut captions or underlines should be regarded as a unit in the layout and therefore very carefully written and dummied. Some editors lean to captions that are set as blocks of type, carefully squared off, with the last line filled out to the end. If the type is small and the block runs deep—as, for instance, an oblong of type 1½ in. wide and 3 in. in depth—it will be found difficult to read, for all that it contributes to the design. Irregularity is apt to increase legibility, by providing a little white space, and this is a point which the layout man should at least consider.

A cut caption should not be crowded too close under the cut, with no white space above or below or at either end of the lines of type. When a caption of two or three lines is placed below a halftone, it will often look better if indented 2 picas at each end and given 2 picas of white space above and below. In general, it is a good idea to have at least 2 picas of white all around any caption and perhaps more if the caption is a large block of type.

Sometimes a mortise or oblong is cut out of the face of the halftone cut and the caption is set into this hole. Such a caption in a mortise should be regular in form, and the rule that white space must surround it should be strictly observed. A mortise may likewise be created by cutting into one corner of a square cut or by stepping two cuts off in such a manner as to obtain an oblong space for a caption, which should neatly fill the mortise except for the white frame around the type.

An interesting way to set a caption under a portrait is to make each line of type a little more than half the width of the cut and place it flush right under the cut. Thus, if we had a 2-column picture of a prominent man or woman, we might order a cutline 15 picas wide, to be set flush with the right-hand edge of the cut, in two or three lines, leaving white space on the left; or we might have it set in 10-pica measure and center it under the cut, with white space on either end.

It is important that the one ordering such cutlines mark the copy with proper directions for the printer. All type except regular body type for standard news columns is set in the measure indicated on a slug which is 30 picas long and then is sawed off to the length of the type line. A 10-pica caption would be set in 10-pica measure on a 30-pica slug, then sawed to 10 picas. If it is to be placed under a 2-column picture, this means that the empty

space beside the caption will have to be filled in with metal slugs in making up the page, and the printer may overlook the directions for placing the lines.

Much trouble can be avoided by marking the cutlines: "Set 15 picas flush right on 2-col. slug" or "Set 10 picas centered on 2-col. slug." In sawing the slug the printer will then leave the metal that is needed to fill out the width of the cut and to give the caption the desired position beneath the picture.

Cuts that leave a half-column space on the side for a caption are often very effective. Thus a 1½-column cut is placed in a 2-column space, with a 2-column overline and a half-column cutline down the side. Such a half-column caption looks best when it does not run too deep, so that there is a good depth of white above and below it, and it should have ½ em on either side. If it is not otherwise indicated, the printer will probably set this caption so that its lines are identical in length. In other words, it will be squared off on the sides. If the picture editor wishes, he may mark it "Set ragged," in which case the length of the lines will vary and there will be a little more white space around the type. When the cutline is to be set ragged, it is a good idea to compose it with this in mind and indicate to the printer what words to include in each line. Otherwise many words may be divided on the ends of the lines, and the caption will be hard to read. In sending such a caption to the composing room it might, then, be marked: "Set 6 picas, indented ½ em on each side"; or "Set 6 picas ragged."

Cut Caption with Run-in Sidehead

Many editors like to begin all captions with two or three words in larger type to attract the reader's eye. These may be simply the first two or three words of the explanatory cutline as it stands, or they may take the form of a catch phrase or legend which draws the reader much as a headline over a story draws him to the smaller body type. Such a run-in sidehead should be pithy but not slangy. It should be set in type a size or so larger than the type of the caption, but not so large that it creates little distracting black spots in the layout. With a caption in 8-point Bodoni boldface roman, the sidehead could be in 10-point ultra Bodoni italic; or with a 10-point Bodoni boldface roman caption

it might be 12-point ultra Bodoni italic; or either of these could be used reversed, caption in italics and sidehead in roman. If sans-serif type is used for the cutline, the run-in sidehead will look well in caps of a size larger.

Another manner of setting the sidehead is to put it in roman caps, then finish with a cutline in italic lower case; or the sidehead in italic caps and the sidehead in roman lower case. To illustrate, the sidehead might be in Caslon boldface roman caps, followed by the rest of the caption in Caslon boldface italic lower case. *Life* very effectively departs from typographical standards in its use of Gothic run-in sideheads combined with captions in lightface roman. Only the editor who has developed taste in such matters will be ready to experiment with more unusual combinations successfully.

Each part of the caption should be marked carefully with instructions to the printer on how it is to be set.

Double Printing

Occasionally a boldface caption or overline or heading is stripped onto a halftone in what is known as double printing; that is, it appears in black letters directly on the light part of the halftone background. White letters on dark tone can also be obtained by the photoengraver. Double printing adds to costs and will be reserved for special purposes. Too small a type should not be used, probably not smaller than 10 point for a newspaper.

When double printing is desired, the line or heading must be set in advance of ordering the art. A proof is pulled on glazed paper and is furnished to the engraver along with the photograph or layout. The halftone negative is first printed on the metal, which is then reexposed to light in a contact frame under a negative line film of the lettering in exact position and with sufficient area of black surface to mask all parts of the metal except where the letters are to be printed. White lettering on a dark halftone is obtained by stripping the positive line film of the letters onto the halftone film before printing takes place. Hand lettering may be done directly on the face of a photograph to be copied in halftone, or a line of type may be set and pasted down in a narrow strip on the picture. In this case the letters will appear in halftone, not as pure black or white.

Suggestions Summarized

To summarize briefly the suggestions we have made:

1. Cutline type may show a contrast but should harmonize with headline type used in the paper.
2. Cutlines should have sufficient weight or tone to harmonize with halftones and are therefore often used in boldface.
3. The type chosen may in special cases, as for some feature layouts, reflect the mood the pictures are meant to convey.
4. Hand lettering should follow the forms of the excellent faces to be found in the type-specimen books and should avoid eccentricities which may be in bad taste.
5. Cut captions may be placed: (*a*) under the cut; (*b*) flush right, in narrow measure under the cut, or centered with white space on each side; (*c*) in a mortise cut out of the face of the cut or in a mortise formed by stepping two cuts off; (*d*) in half-column measure beside the cut; (*e*) double-printed on the picture, an engraving process; hand lettered or pasted down on the picture before it goes to the engraver.
6. Overlines may be: (*a*) centered over a single cut; (*b*) run full to create unity when the top of the layout is uneven or open, as with 1½-column cut set in 2 columns or a layout with caption mortises at the top; (*c*) omitted entirely if the cut or layout is directly under a banner line on the page, double-printed, or hand lettered on the face of the layout.

Keeping Track of Cuts and Cutlines

Much unnecessary grief is occasioned in a newspaper plant by lack of proper system for routing and assembling cuts and cutlines. Some editors order their cuts but fail to order their cutlines until the last moment, when they place a burden upon machines in the composing room which may be in use setting advertising copy and thus cause considerable difficulty in getting the paper to press. Department editors sometimes have cuts delivered to themselves several days before they are to be used and then fail to deliver them to the composing room along with the page dummies or even mislay them.

The place for cuts is at the cut bank in the composing room, and they should invariably be delivered there from the engraving plant. The cut bank should be equipped with proper storage

facilities for keeping advance cuts, so that it will not be necessary to deliver them to editors and so that they may be on hand when needed. It is the duty of the man at the cut bank to base the cuts, usually on standard metal base, and to place the cutlines, which likewise come to the cut bank after they have been set and proofread, with each layout exactly as they will appear in the page. This saves time and labor at the time of making the page up on the stone.

For such a system to work it must start with the person ordering the art. At the same time that the editor fills out an order slip for a cut or layout, he should write the captions (overline and underlines) and send them to the composing room. He should make sure that the slugs on the art and cutlines correspond. Thus the order for art and the order for cutlines might each be slugged "City Edition—Fire," or "Sunday Woman's—Gown." The editor will at the same time enter the slug "Fire" or "Gown" on the page dummy, in the space he has marked off for the layout. Each separate photo sent the engravers also bears these slug words.

Usually the engraving plant delivers the cuts, an engraver's proof of each cut or layout, and the original pictures to the cut bank. The slugs on the originals guide the man at the cut bank in assembling layouts and cutlines. The Sunday department, if it uses large, complicated, multiple-cut, or pastedown layouts, may find it a better plan to have the engravers send the cuts to the cut bank, the originals and the proofs to the Sunday editor. At his desk the slugs are immediately transferred onto the proofs, and a layout on a small dummy is attached to the proofs when they are sent to the cut bank. Of course any delay in doing this will hold up the work of the cut bank. If done regularly and promptly it will relieve the composing room of the necessity of handling large numbers of original photos or unwieldy pastedowns. The engraver's proof should be checked to see that the work has been satisfactory and that dimensions are right.

A. APPLICATION EXERCISES

1. Select a picture layout from a recent newspaper in which you think the type used for headlines does *not* harmonize with the emotional tone of the content. Select two layouts in which you think the type used for headlines both harmonizes with the emotional value of the content and with the

type faces for news or feature matter on the page. Specifically justify your selections in each case.

2. From a recent newspaper select a news picture layout in which you think the headline does *not* point to the picture or contribute to the rhythm of the layout as well as it might. Paste this layout on a sheet or sheets of copy paper and dummy in another head which you think meets your objections.

3. Dummy an 8-col. page for a newspaper showing two or more news headlines of the same column width which "interlock" to produce a diagonal feeling. Select a news or feature page from a recent newspaper in which at least two of the five text-explained devices have been used to prevent a gray waste of body type from detracting from the picture effect.

4. Suppose you have a 2-column picture of a map showing the strategic importance to Japan of the capture of Canton, a 4-column layout showing Japanese tanks entering Canton, with an inset map showing the 500-mile angle from Canton to Hangkow. Dummy these two picture groups on opposite sides of an 8-column page. Write headlines for both groups, indicating the type face and size for each. Assume that your paper uses Bodoni boldface for news heads.

5. On your dummy for the page in Exercise 4, tie your two picture groups together in a way which seems appropriate and effective to you. Write underlines for these two picture groups, indicating the type you would use, where you would place the underlines and how wide you would make them, assuming that the body type of the page is normally 7 point.

6. Select from a recent newspaper a halftone picture which has five or more lines of caption below it, but which you think lends itself to a mortised caption. Indicate the mortise and rewrite a briefer text to go therein, showing how much white space should be left. For this same picture write, and show the placement of, an underline to be set flush with the right-hand edge. In each case, show precisely what instructions to the printer should go with each underline.

7. For the picture selected for Exercise 6, write a 4 to 5 word overline. Mark the type to be used in this overline.

8. Select from a recent newspaper two examples of sans-serif type and one or more examples of what you believe is hand lettering.

B. CHAPTER-ORGANIZING QUESTIONS

1. What qualifications should combine, at least moderately, in a news picture editor?

2. What desirable effect may be obtained by the tie-up called for in Exercise 5?

3. What bearing has the darkness or lightness of a halftone on the typography of the explanatory caption?

4. Suppose you have a 4-column halftone which requires considerable explanation. What objection is there to printing this in the usual body type of your news page in straight lines flush with the sides of the cut? What would you do to remove this objection?

5. What three type faces are commonly used styles of square-serif letters? If one of these type faces is used as a news head on the feature or woman's pages, what type would harmonize well for a picture layout head and underline?

6. If sans-serif head type is used for news stories on a page, what type face could be appropriately used for picture overlines and underlines on the same page?

7. What is the aim and what the danger in hand lettering for picture or feature heads in a newspaper? What precaution may be taken to avoid this danger?

8. What is meant by "Set 6 picas ragged?" By "Set 6 picas, indented ½ em on each side"?

9. Explain what a run-in sidehead is and what effect is aimed at in its use. In selecting type for a run-in sidehead, what unpleasant effect should be guarded against? If the body of the caption is in 8-point Bodoni boldface roman, in what size and face may the run-in sidehead be effectively set?

10. Explain how double printing on a halftone is done. What practical disadvantage is there to double printing?

11. What limit should there be to the securing of *contrast* in the use of cutline type with respect to headline type on the same page?

12. List five places where picture captions may be placed. List three places where overlines may be placed. Point out what relationship between caption and illustration must exist in any case?

13. Should engravings be sent from the engraving department to the department editor involved? Explain your answer.

Chapter XVI

FRONT-PAGE PROBLEMS; MAKING THE FRONT PAGE SERVE THE ADVERTISER

PREVIEW QUERIES

Arthur Brisbane prophesied future front pages would present all important spot news highly condensed, while inside pages devoted themselves largely to interpretation and continuations. A sharply different modern view regards a front page as the newspaper's "book jacket" to sell the issue and induce the reader to turn to inside pages. Which do you think is the sounder view?

Will the poster effect, which news photography can give a front page, influence strongly both the makeup and the advertising value of the newspaper?

Does it lead readers inside the newspaper to start many stories on Page One and continue them on inside pages?

Is the principle of the "tempo-dynamic" structural layout, inaugurated in 1937 by the Glendale (Calif.) *News-Press*, an indication that makeup is improving in what has been called "the changing newspaper"?

How influential a part has radio advertising played in this new trend toward "photography-conscious" book-jacket plan for presenting news and comment?

Does a centered large nameplate with boxed ears at each end help or detract from the aliveness of a front page?

What strong objection is there to departmentalizing news in the daily newspaper in the way which has made *Time* and *News-Week* so popular and successful?

NEWSPAPER front-page layout was considered in a general way in an earlier chapter. With better knowledge of picture layout we are prepared to return to the front page, to examine some of its specific problems. Experimentation with Page One is going ahead steadily in many parts of the country, both on large-format papers and on the tabloids. Some of the achievement has been outstanding. Designs for front pages have varied, but there is the beginning of recognition that a new graphic element, the newsphoto, can give the page poster value it never had before.

So much has been said about modernizing typography, it has seemed that not everyone recognized the role that newsphotos had played. As a matter of fact, the pictorial coverage of the news is rapidly forcing the issue of a modern "structure" for Page One. New materials demand new designs and methods in any field. In the early days of the skyscraper architects still tried to fit Grecian pillars into the façades of steel-frame giants with elevator arteries. After a while the elevator and the steel skeleton demanded recognition through appropriate design. Something similar is happening to the newspaper. Experts explain that its design must be functional. It must reflect its purpose and the elements of which it is composed.

Modern type faces have played their part, providing more beautiful and suitable dress in which to display the news. The Bodoni boldface headlines in upper and lower case, first adopted by the New York *Tribune* (now the *Herald-Tribune*) on December 3, 1918, have since been copied by papers throughout the country. Goudy's distinctive Bodoni type undoubtedly helped this newspaper to win the Ayer Typographical Contest three times. Yet in 1937 the prize went to the Los Angeles *Times*, for a page which combined modern type, a modern form of headline, *and newsphotos*, in a front-page presentation that was new and startling.

The Glendale *News-Press* (Glendale, Calif.), which won the second award in 1937, had likewise made dramatic use of these same materials. Like the Los Angeles *Times*, it employed a sans-serif headletter, balancing type masses against picture masses in a structural layout which it named "tempo-dynamic." Going still furthur in the bold use of modern facilities, it splashed its nameplate in blue and dropped its column rules.

These 1937 Ayer awards were the signal that it was time to give up hoop skirts. Many changes in newspaper dress have been tried since then. They are in the direction of a page that is *built* for dramatic news display, out of the elements of head type, halftone, and body type. Considered graphically, each of these brings a different *tone value* to the page, and these tones, balanced against each other, just as they might be in a poster or advertisement, are what give the page its power of arresting the eye.

On May 1, 1937, The Toledo *News-Bee*, a Scripps-Howard paper, inaugurated a new page design by Gilbert P. Farrar. Its

revolutionary pattern used a black rule to mark off a rectangle or bull's-eye portion of the page for big news, including a newsphoto. The part outside this rectangle was reserved for features and feature pictures and for listing under a display head the contents of the inside pages. The type used was also of a new sans-serif design, Metro medium, in flush-to-the-left headlines. The general effect was that of a news page laid on a feature page, a novel graphic presentation, further enhanced by the daily use of color on Page One.

In the same month (May 24, 1937), the New York *Evening Journal* appeared with a front page which could be folded in quarters, for easy reading, and still maintain its graphic display features. The nameplate occupied a rectangle boldly ruled off in the upper left-hand corner, with a headline below it, across the first four columns of the page. The upper right-hand corner was occupied by a newsphoto in large dimensions, topped by a 4-column boldface overline or headline.

These pioneer front pages have been followed by many other attempts at modernization. Some have sought to make changes in typography alone, with the new type faces and the flush-left or streamline heads. A few have realized that dramatic appeal is better obtained by using both pictures and type to create a layout with motion. Old-fashioned notions that pictures do not belong in outside columns have been cast overboard. So far it has been impossible to bleed pictures on newspaper presses, but this mechanical obstacle will probably soon be solved. Meanwhile methods of the graphic arts are improving the poster values of Page One.

Yet the whole problem of the front page has only been thought through by a very few. The function of Page One is twofold: to *sell* the paper, and to *get the whole paper read.*

If we were called upon to plan a jacket for a book or a cover for a magazine, we would probably realize that these two purposes were involved. The book wrapper attracts the reader by its color and pattern, then seeks with a "blurb" to interest him in what is between its covers. This second factor is all-important. People must be induced to read and tell their friends, or the sale of the book will be short-lived.

In the case of the magazine cover, poster value is important for newsstand sales: the cover must *sell* the magazine. Yet large

numbers of subscribers are not greatly affected by this factor, since they receive the issue regularly in their homes. The cover for them must do more than get attention; it must make them interested in sitting down and *reading* the magazine. Often it does this by announcing some of the best offerings to be found inside: a famous author, a full-length novel, an article of vital interest. Only if the subscriber reads every page of the magazine will he have been exposed to the advertising that the inside pages contain, so the purpose of the cover is not only to attract, but to induce him to open up.

The newspaper's front page has a function closely resembling that of the magazine cover, at least up to a certain point. It will be displayed on newsstands, and it will be delivered to homes. It must *sell* the paper. It must also—and this is what so frequently is overlooked—*get the whole paper read.* If the purchaser glances over the front-page banner lines and big stories, then throws the thing away, the advertisers will not be getting results and the financial security of the paper will be undermined. Editors often think they can accomplish this purpose of getting the inside pages read, by starting all big stories on the front page and then jumping them to inside positions. Careful surveys of reader reaction made by Dr. Gallup show that only a very small percentage of readers ever bother to turn to the pages indicated in the jump lines. Most are content with the gist of the story as gathered from the lead. We have managed to develop a nation of "front-page readers," Dr. Gallup points out, and as a result the advertisers are giving their money to the radio. As the first step, then, in making the front page fulfill its proper function, it is obvious that we must build a page which *gives* the reader less, but *promises* him more, a promise which only the inside pages can fulfill (Fig. 25).

Before pursuing this thought further, let us consider another angle of the problem. News coverage is very complete today, and readers have been taught to take a vital interest in the latest happenings on many fronts. Foreign wars, national politics, local crimes, scientific discoveries, romance, adventure, and disaster around the globe, all compete for a ranking position in the report of a single day's happenings. Add to these a multiplicity of special columns and features, editorial comment, sports news, and society, and you have a bewildering assortment of items

IDAHO

BOISE CAPITAL NEWS

Idaho's Independent Newspaper

FINAL

Farmer Has Compliment for Roosevelt Down Pat

Final Bulletins

Picture of an Unidentified Coast Celebrity

Boise's Day

The News Today

Local

Bad Break For Husbands?

Fire and Soap In Seattle War

Plane Crash

Congress

National

World

Chinese War

Markets

Boise Calendar

Tuberculin Tests To Be Explained By Dr. Hart

Kaare Engen to Ski for Utah

Commerce Bureau Appoints Group To Probe Crash

Weather Report

Today They Said

GOP Attack On NLRB Funds Quickly Halted

Takes Auto Too Far on Tryout

Queen Marie Sinking

Says Elliott Too Much A Watchdog

Phoney G-Man Nabbed in South

Chinook Joe

Fig. 25.—New front-page theory is changing the appearance of many newspapers. Here, the Boise *Capital News* treats the page as a "cover," rather than as the place for "spot news." Pictures attract the reader, while summaries of important events invite him to open up the paper. Unless he does, the advertising may fail to show results.

seeking the attention of the reader. Moreover, in all the reportorial fields there is dual coverage, pictorial and written. Asked to pay attention to so much at once, poor Mr. Public is apt to find himself confused. He may decide to "skip the newspaper" entirely and catch up with events via a weekly news magazine, which sorts it all out for him and serves it up in departmentalized form, condensed and high-lighted. In this way he sees the whole national news front at a glance, then the foreign news, etc. Bringing order out of chaos, as it has done, no wonder that the well-written news magazine has been popular.

Some few editors of newspapers have thought to follow the vogue for departmentalization by turning their Page One into a news-magazine mold, with the regular department headings (Fig. 26). This is to overlook the obvious fact that today *the news is breaking,* is *alive,* aching to be told, not to be fitted into neat little cubbyholes. A departmentalized Page One treats news as if it were not news at all. What the reader wants is, first, the big news story of the day, whatever it is—no matter whether it is a bill in Congress or a local fire or a feat of aviation. He has a mind which can only pay attention to one thing at a time, and so he would like to have the biggest news story served to him first. That one story, in words and in pictures, is sufficient to *sell* him the paper, provided of course that it is played up dramatically, not buried under a departmental heading (Fig. 27). One good plan for the front page, then, is to select the *story of the day* and play it boldly. Small-sized body type is hard on the eyes, and the reader would doubtless be better satisfied if this story were displayed in wide measure (say in columns of 15 to 18 picas) and in 10 point instead of 8 point. This would involve no problems of expense in the composing room, if adopted as a regular and consistent element of Page One planning.

The second function of the front page is to lead the reader to the inside of the paper. This it can do by displaying other big news stories of the day in the form of heads and bulletins only, with the inside page numbers where they may be found completely reported. After he has finished with the one biggest story, the reader will be ready to turn his attention to these. If the inside of the paper is loosely departmentalized, to the extent that he can get the habit of knowing where to look for national politics,

Late City Edition of the 3 Cents

Gist

of Today's News

Vol. 96 No. 42,980 Washington, March 4, 1937

Lewis Wins U.S. Steel Recognition, 40-Hour Week and $5 Minimum Pay

Labor

On [illegible] union from the C[illegible] State's Supreme C[illegible] was quietly announced [illegible] sought by Philip Murray [illegible] Steel Workers Organiz[illegible] chief lieutenant of John L. [illegible] Committee for Industrial O[illegible] The announcement also [illegible] of $5 a day [illegible] Steel Corporation [illegible] basis effect March 1. Pay [illegible] entire United [illegible] to increase the [illegible] of the Wheeling Steel [illegible]

Unofficial reports in New York [illegible] that the agreement [illegible] [illegible] [illegible]

Virginia Forecast—
Fair and Cold Today; Tomorrow, Fair and Warmer.
Complete Report on Page 2.

Richmond Times-Dispatch

Price Cornelius—
Quick for the Children, Others Say Nothing for Years.

93th Year — Richmond, Virginia, Saturday, January 15, 1938 — Three Cents

Three Means Of Selecting SchoolBodies Proposed

Sponsors Hope To Bring System Closer to People

By George Prince Arnold

Selden Scott Dies as Flames Raze His Home

City Action On Library Is Delayed

Four-Hour Debate Inconclusive

Bonnet Set To Select New Cabinet

Will Interview Six Ex-Premiers

Roosevelt Call for Abolition Of Holding Companies Throws Bombshell Into Wall Street

Leaders Confer, Seeking Means To End Recession

Aldrich Says Utilities 'Bursting to Go Ahead'

Experts Puzzled; Further Details Expected Soon

'60 Families' Hurled to Floor By Senators

Roosevelt Has No Opposition To Woman Justice

Armistice Advocate Takes Chairmanship

U. S. Error Recognized

FCC Cautions Network About Naughtiness

Nickel Damages Asked In Attack on Salute

On the Inside

	Page
Agriculture	10
Amusements	11
Arts	3
Business & Finance	12
Communications	7
Editorials	6
Foreign Affairs	5
Labor	7
National Affairs	4
Obituary	10
Other States	9
People	3
Radio	11
Religion	10
Society	3
Sports	13-15
Wash. & City	16
Women's Page	14

Earth Quiz Stumps Distant Farmers
Partner Blasts Mistress
This Is Richmond Red Weeks
Three Tickets to Be Given
Dr. Hamlin Heads Chamber
Pepper's Night Out
Will Depict Stories Hart
Marjorie Gay Recaptured, Chairs Bar
Union Wants Director Removed
Assassin Yet Remains Advancing
Mrs. Mellon D. Quits Dies
Marshall's Colony Sent to Children
Another Appointee Backs Post
Dixon Mayor on Opera Broadcast
Services in Two Richmond Churches
Miss Hathaway Traffic Queen Study
Virginia Scores Most Records
Mrs. Roosevelt Visits Dr. Bethune's School
Old Bonds Are Obsolete

FIG. 27.—Partly departmentalized is the Richmond *Times-Dispatch*. It plays "the story of the day" and a few others on Page One, but saves much important news for inside pages where news is grouped and classified.

for foreign affairs, for local features, etc., he will turn from the front page more readily.

A *table of contents* on the front page is better than no key to the paper at all. However, it does not actively entice the reader into the paper. For this, definite "bait" is needed in the form of well-displayed bulletins, headlines, and blurbs describing the content of the inside pages. A complete table of contents is important to a large-sized paper with much scattered news and feature material. It is not a particularly attractive unit on Page One, which should be firmly regarded as the "cover" page of the paper. The table should be given a permanent position where it is readily found, possibly in the form of a box on the page facing the editorial page, or on the front page of the second section (commonly referred to as the "split page"), when there is one. A boxed or boldface reference to this index, on Page One, will in itself serve as an inducement to the reader to open up the paper.

Pictures can lead the reader into the paper as surely as stories can—perhaps more surely, because of the emotional appeal of good news photographs. When a single dramatic shot of a big news story is played boldly on the front page, and the reader is referred to the daily picture page or to an inside page for more, he is practically certain to turn to them. Picture appetite can be depended upon as a means of getting the paper read, much more than appetite for reading matter. The same man or woman who never reads the jumps probably always looks at the pictures.

When there is a single news story breaking of such proportions as to make its pictures overshadow all others for the day, the front page might feature only the most dramatic newsphoto of this story, playing it large and making the reader turn inside for other pictures. When there is no such overwhelmingly important news story to be had, a sound psychological treatment of a large-format Page One is the use of a broad or narrow strip of pictures down one side, each picture relating to a different story, with a cutline referring the reader to the inside page where the complete story and additional newsphotos may be found. Such a strip may be balanced by the weight of a larger picture elsewhere on the page, or by proper grouping of headlines and type matter, to give the page as a whole diagonal feeling; or the picture strip may take the center of the page, with small cuts on the sides of

the page so placed as to create diagonal motion and contrast of size.

When there are several big news stories breaking and all have furnished a supply of dramatic news shots, it may be worth while to turn the entire front page into a picture page, dividing it into horizontal bands of alternate banner lines and newsphotos. The cutlines under each strip of pictures will tell enough, in conjunction with the banner line, to whet the reader's appetite and make him turn to the page where it is indicated he may find the complete word and picture coverage. The biggest story of the day will naturally take the top banner line and broad picture band above the fold (Fig. 23).

Of course there are editors who will not agree to give this space to pictures on the front page. For the more conservative, it is always possible to plan an asymmetric arrangement of the front page, using one or two newsphotos in 3 columns, or a deep 2-column picture balanced by some smaller cuts on the page. These may be the faces of interesting personalities in the news, in 1-column or even ½-column size. As often as possible they should refer the reader into the paper for the complete story, instead of serving as illustration to stories that appear on Page One.

The poorest attempt at fulfilling the second aim is to start stories on Page One and jump them to inside pages, since few ever read the jumps and these (as we shall see later) serve to make the appearance of inside pages dull.

To sum up, *the front page is not just a big news page. It is the cover page of the paper, and, like the cover or jacket of a book or magazine, it must accomplish the twofold purpose of selling the paper and getting the whole paper read.*

Good ways to use the large-format front page as a cover page which sells the paper yet leads the reader inside, are:

1. Dramatic play of the one big story of the day, by means of one large newsphoto and banner line, with the story complete in a good-sized readable type, possibly in wide measure. In a box or in boldface type the reader is referred to an inside page, where more pictures, side-light stories, features, and "sob" stories connected with this one big news story may be found. On this type of front page, other big news stories of the day are treated in headlines and bulletins, complete in themselves as news flashes,

but brief and serving as blurbs for the full accounts in word and picture form which may be found inside the paper. Each head or bulletin carries the page-reference line in boldface type. Feature stories of popular appeal, important editorials, comics, or any other material which the paper contains are likewise blurbed on Page One.

2. Samples of the best newsphoto coverage for the day are displayed on Page One. A 2 or 3 column strip of action pictures may be used, each on a different story and each carrying a well-displayed reference line to the page where more pictures and the complete story may be found. Such a strip of sample pictures may be balanced by a separate dramatic shot of the big story of the day or by a large box of type matter or bulletins, by small cuts, or by a typographical treatment of the page which gives diagonal balance to the layout. A daily news picture strip may become a permanent treatment of the front page if desired and will only be discarded when an overwhelmingly big news story with newsphotos forces it off.

3. Instead of the wide strip of sample newsphotos, a narrower strip (1 column, 1½ column, or 2 columns as desired), showing candid shots of the faces of people in the news, can be made a semipermanent attraction on Page One (Fig. 25). The personality strip should be used to lead the reader to the inside pages of the paper, in the manner described above. In other words, each picture should be a "teaser," for if it is complete in its message no purpose is served.

4. A good front page could be built to carry both an action picture strip and a personality picture strip. To get motion into such a page layout it would be best not to have both extend the full length of the page. They should be so arranged as to create diagonal feeling.

5. Instead of the vertical strips of action or personality photos, the front page is divided into horizontal bands, starting at the top of the page below the nameplate with a banner line on the most important story of the day. Below this banner is a band of pictures covering that story. Then comes another banner line across the whole width of the page and below it another picture band on its story. Then a third banner line carrying a third band of newsphotos. Finally, at the bottom of the page there is a banner line standing alone. In planning such a page the

picture editor must remember the principle of *rhythm in layout* discussed in an earlier chapter. If every band is the same width, the page will be static and dull. He gives the page motion by increasing the width of the bands in regular order, probably from a narrower band at the bottom to a wider one at the top, because this will give him the best play for his most important story above the fold. In other words, his layout has the rhythm of a wave from its lowest point to its crest. Heads may be stepped up in size from the bottom to the top of the page, or they may all be kept one size, serving as a recurrent unit in the wave rhythm. If varied at all, it must be successively and in harmony with the picture bands.

6. The newspaper's nameplate, instead of occupying the whole width of the top of the page, is brought over flush with the left-hand margin, leaving a space of 2 or 3 columns on the right. A newsphoto, of the action type or a candid personality shot, is pushed up into this space beside the nameplate, which has the effect of giving it a spotlight position on the page and at the same time creating a page layout with strong diagonal feeling. As an alternative, this space may be used for news bulletins in boldface type, creating a type block of oblong shape which will spot the layout just as a photograph would. Such a type block can then balance a picture strip on the left of the page, and both will serve to lead the reader into the paper.

7. A dramatic news shot may extend to the top of the page and be mortised with an oblong hole into which the nameplate can be fitted when the page is made up in the composing room. Or the nameplate can be proved up on glazed paper, copied by the engraver, and stripped onto the picture when the cut is made.

These suggestions for picture treatments on Page One cannot possibly be comprehensive and final, because new pictures and new picture editors will be sure to bring forth new and dynamic front-page layouts. In general, it will be noted that we have not suggested any departure from regular oblong cuts on Page One, because unusual shapes are not suited to rapid reporting of the news. Secondly, it will be noted that we have placed pictures in the outside columns and that we have allowed them to run well below the fold. The old idea of keeping all interest above the fold probably only encourages the reader in his lethargy about opening the paper up. Nevertheless, much of the picture interest must

be held above the fold, in order to sell the paper, and the editor will be wise to note just where the fold does divide his picture strip or layout.

In the vertical strip, while it is possible to keep all pictures uniform because the strip occupies a place as a unit in the general balance of the page, still it is better if possible to observe the principle of rhythm, increasing the depth of the cuts from bottom to top of the strip. The student will see at once that this conforms better in several ways with the principles of picture layout we have already discussed.

Incidentally, there is no room for confusion between the strip of sample news shots for Page One and the so-called "movie strip." The movie strip imitates the motion-picture-camera method by showing a single action at various stages: such a strip might, say, show a horse and rider leaping over a hurdle and would give five separate stages of this single leap. Such a feature strip is sometimes very interesting. Its pictures are most effective when kept the same size, because that is what we expect of a motion picture. In contrast, the front-page strip of news pictures is made up of widely different shots of several different news events. It does not imitate the motion picture and should not copy its technique.

Type, on such front pages as we have described, must be used in such a way as to work with the pictures in creating *balance with motion*. Strong lines of head type can form a connective link visually between a strip of news pictures on the left and a single news shot on the right of the page, thus tying together the units in the page layout and accentuating diagonal feeling.

A strong movement from the lower left to the upper right corner of the page may be further balanced by a 2-column head in the lower right corner of the page. Once the editor gets to thinking of this matter of motion in layout, he will readily find ways of arranging the elements of the page, pictures, head type, boxes, and body type to enhance it. He will develop, as indeed he must, the ability to shuffle all the stories and pictures on the page in a make-over in the composing room and still not lose this one valuable factor of *motion*.

Newspapers quite universally adhere to the practice of decreasing the size of head type below the fold; yet the bottom of the page must be kept interesting and not too gray. This may be

accomplished by using shorter stories, bulletins, and blurbs, by breaking up long stretches of text with subheads, or by setting all quotations in boldface, depending of course on the general style of the paper.

In modern page layout it is often thought desirable to eliminate the column rule. *Undoubtedly this helps to give the layout freedom and motion,* but in dropping column rules, be sure to increase the white space or "gutter" between the columns to not less than 1½ picas for 12-pica columns. Otherwise the page will not be legible.

Modernizing the Nameplate

Before leaving the subject of large-format front pages, a word might be said about newspaper nameplates. Some papers are modernizing the nameplate along with the whole general presentation of Page One. Others cling to their traditional nameplate as a country doctor might cling to a weather-beaten shingle, believing his practice would vanish if the shingle were modernized. Many of these nameplates are in old-fashioned black letters, heavy and antique in feeling and centered at the top of the page with boxed "ears" on either side and the date line set between rules below. They spot the page in a fashion which at once *suggests vertical or symmetric balance,* and, for this reason and because they are of a size which dominates, they definitely interfere with the job of creating a page layout which has asymmetric feeling, or balance with motion.

There are several cures for this ailment.

1. The nameplate may be kept strong but moved to the left of the page, so as to aid rather than hamper the asymmetric layout. The balanced ears of course must go, and it may be desirable to decrease the size of the nameplate, if it crowds the top too much in this position.

2. The nameplate may be redesigned in a modern sans-serif or square-serif letter, kept large but fairly light so as not to detract from the visual function which the bold banner heads perform. The headlines not only announce the news but serve as dark horizontal lines which tie up the separate elements of the page. The nameplate should not interfere with this. The modernized nameplate will also work better if moved to the side of the page.

3. If the center nameplate is retained in its traditional type, it should be definitely decreased in size or lightened in effect so that it does not dominate the page. The ears will be better without the boxes, which accentuate the vertical balance.

Newspaper clienteles do exist which regard sudden or drastic changes in newspaper dress as offensive. Many travelling Kansas Citians, long accustomed to the gray tone and conservative headlines of the Kansas City *Star*, find the "street sale" display of Chicago and New York newspapers "overdressed." Custom is a powerful criterion, and readers accustomed to conservative makeup may lose confidence in a paper which suddenly begins to wear what they may construe as a checkered suit and red vest. Yet these same readers increasingly enjoy mass-appeal moving pictures; tune in on highly condimented radio programs; drive on pleasure jaunts with increasing frequency in streamlined motorcars, broadcasts blaring under the dashboard. They watch, listen, and ride, whereas 20 years ago the rustle of a newspaper being *read through* constituted a note of verisimilitude in the great American home. For the same reason that news pictures answer a need of quickened tempo, a need of competing interests, journalism needs livelier, more compelling newspaper appearance to compete with lively, compelling claims for the public's energy and time.

This change, in some environments, should be strategically paced. In conservative localities the newspaper dust bowl should be irrigated, but not with a roar that suggests in those localities a broken dike. A paper's gray business suit may be changed for an English tweed with a subtle dash of red in the weave. Ultimately, what might have lost reader confidence and been charged as "tawdry" may be welcomed as virile charm. A newspaper to succeed must induce readers to regard it as essential to their budget and daily routine. A publisher must change his offering as his clientele definitely changes its appetite, but he must know his clientele. He must not offend them today with what he knows they can be educated to prefer in a year. A middle-ground front-page makeup, a compromise between the somewhat advanced "tempo-dynamic" arrangement and the gray, all-big-news-on-Page-One presentation, can still use three modern principles without incurring the charge of sensationalism. These three principles would be: (1) More pictures, some of which refer

to stories on inside pages; (2) a cover jacket policy which gives more complete coverage of the one or two biggest stories of the day on Page One, reserves other big news *for inside pages*, and carries an adequate interest arousal of inside page content; (3) sans-serif or other modern design flush-left headlines.

Even conservative newspapers have adopted two-deck top heads in upper and lower case type. Test after test has proved that few persons read more than two decks of a headline, and that upper and lower case heads are more legible because an adult reads word-at-a-time, not letter-at-a-time.

More Pictures. As previously pointed out in this book, pictures with news, personality, and action value, when given enough room to breathe, seize the attention by instantaneous vividness and tell their story more compellingly than the same space devoted to type. A strip of pictures down the left-hand side of the front page has distinct value, partly because it pulls the eye to the left, from which reading habit leads one naturally to move toward the rest of the page, whereas a picture mass to the right or middle of the page produces habit-made resistance to moving the eye back to the left.

A solid flow of pictures down the full length of the first 2 columns may suggest to some clienteles an overplay. Moreover, the first 2 columns above the fold carry interest in themselves without pictures. Dr. George Gallup's early surveys revealed that space below the fold is exceedingly low in reader interest. A possible place for conservative papers to use a strip of news photographs with underlines referring to inside pages is across the bottom. The ultra-conservative Kansas City *Star* occasionally uses this plan, but so far without referring to inside stories. The greatest disadvantage of such a treatment is that it gives the page a static appearance, but this may not displease the publisher who wishes to "play safe." It seems well to have at least one picture, as a fixed policy, below the fold of the front page, referring to a story, feature, or editorial on the inside of the paper.

If a publisher believes his readers would resent pictures daily across the 8 columns at the bottom of Page One or finds enough pictures of adequate news value impracticable to obtain, he may still effectively enliven this below-the-fold portion by two devices. (*a*) A 2-column, shallow head not more than four inches

above the bottom of the page, on each side of the lower half. These heads over short stories should preferably be placed across columns two and three and six and seven. This is a common practice on the conservative New York *Times*, but many other papers retain arid, unrelieved lower-half front pages. Even if long stories logically extend down this area and might necessitate jumps if this 2-column head policy were obdurate for short stories, the heads can be used to break up the longer stories. In this case, they become in reality 2-column subheads, as is often the practice on conservative newspapers for breaking up 6 or 7 column news or feature articles for which no pictures are available. (*b*) A 2-column boxed or indented description of inside page interests, placed below the fold. If the 2-column heads are used, this blurb feature can be placed in columns four and five, extending 1½ in. above the headlines and dropping to the bottom of the page. Many variations of this principle will of course suggest themselves to makeup editors and publishers.

A Cover Jacket Policy. The Richmond *News-Leader* has used its full left-hand column on the front page to index all important stories, features, and editorials in each issue, leading off with Page One stories. Many other papers print brief "thumbdex" or index references to inside pages. Other papers have used their nameplate ears to call attention to special inside features. As previously suggested, this is better than no index at all; but a mere table of contents is not so effective, progressive publishers believe, as brief *paragraphs* devoted to each story indexed, paragraphs which definitely try to *raise questions* in a reader's mind and to indicate that interesting answers or data may be found on a specific inside page. The psychological soundness of this is attested by Dr. John Dewey's analysis of a thought process, which indicates that the first three steps in any thought are a felt difficulty, isolation of a specific problem, and a suggested solution. The practical value of it has been proved by magazine publishers in their cover blurbs and by book publishers in the colorful jacket appeals. It is doubtful whether the Richmond *News-Leader* is efficiently using its front-page column one by devoting part of it to Page One stories. The space might better be used for fuller interest arousals for inside stories, letting front-page display speak for itself. The main object is to get the *inside* of the paper read.

Of course, a basic rule of advertising must not be violated. Do not devote front-page space to advertising inside pages which contain little or nothing of interest. The cover jacket policy of a newspaper demands that only one or two big stories be played on Page One and that other important news be attractively displayed on the inside. It pays to advertise, only if you can deliver the goods. Years ago, Hugh Graham, founder of the Montreal *Star*, gave preeminent display to the one big story of the day, every day. Human attention cannot easily focus on more than one thing at a time, and the field of the attention is definitely limited. The policy of displaying one or two big stories on the front page does not mean the mere limiting of the front page to a single column of one story with the rest of the page devoted to inside-page allusions.

As a matter of fact, a newspaper rarely has more than one big story a day. Some days there *seem* to be *no* big stories. It sometimes takes creative editorial force and imagination to breathe life into a story in order to build it into what it is really worth. For instance, the Kansas City *Star* gave major display on November 18, 1938, to Germany's temporary recall of Ambassador Dieckhoff. Two-thirds of a column was devoted to this. No picture of Dieckhoff was printed, no account of the diplomatic or historical background of the action; there was merely the spot news account. This conformed with a common news policy: simple, terse statement of fact. On the front page of that issue were four other top-head stories and a 4-column news picture. The 37 other pages of this issue contained several stories of major interest. No front-page description, however, intimated what might be on the inside. At least three of the other four top-head stories on this front page might have been blurbed on Page One and used further to brighten the *inside*. The Dieckhoff story might effectively and informatively have been *built up* by providing historical, legal, and diplomatic background, as well as a review of American public opinion on the Nazi reprisals for Grynszpan's assassination of Vom Rath, upon which Dieckhoff was presumably being called to report. Since there was also an important local story in this same issue, the conservative Kansas City *Star* might have built up on Page One background and parallel interests on both stories, routing the other three top heads to the inside, but carrying some small

stories, more pictures, and an adequate cover jacket feature across 2 columns at least 8 in. deep on the contents of inside pages.

Jumping stories from one page to another has two bad results: readers discontinue the story at the "continued" line, reading other stories before they go to the trouble of turning large news pages; and, since many readers read no continuations at all and most of those who do have read other stories before picking up the carry-over, the jump on an inside page becomes either dead or moribund material. If, however, publishers find cogent reasons for jumping stories, two methods may lessen the ill effects of the jump. First, they may continue to an inside page only a complete division of a story; for instance, a play-by-play account of a game, or specific details of court testimony or of a crime, which constitute a sequel to the original story, as it were. The end of the first part may carry an italics or boldface or indented paragraph indicating that "direct testimony may be found in column 6 on page 8." This Page Eight story then will carry a full-sized head and its own individual lead. Another method is to group all Page One jumps on 3 or 4 columns made up attractively in the same corner each day of the same inside page under a boxed 3- or 4-column 24-point head, "Continued from Front Page." Under this, each jump should carry the continued line and a 2- or 3-line, 14-point or 18-point head which repeats a distinguishing phrase from the original head but which varies sufficiently to headline the jumped material and give interest to it.

It might be wise for a conservative newspaper to adopt only one of these middle-ground principles at a time; and of course enlivening policies other than these three could be developed later. The point is that many papers have found it damaging to change policy or appearance too quickly. The shift might suggest instability and meretricious tendency. It is not likely that readers accustomed to ultraconservative makeup—and this country contains areas where taste changes slowly—would at all quickly accept a decreased nameplate at the left, with a large picture rising above the nameplate at the right and bands of pictures or streamers on the front page, particularly when readers in such areas have actively resented even one streamer head. Yet the page arrangements earlier described in this chapter show

marked tendencies in present-day reader appetites and are admirably suited to certain localities and certain conditions of competition.

The Tabloid Front Page

So far we have considered only the front page of the large-format newspapers. The tabloid front page offers a somewhat different set of problems. Right here it is important to call the student's attention to the fact that we are *not including* in this discussion the front pages of tabloid Sunday supplements in large-format newspapers, for these require layout treatment adapted to their own needs and bear *no relation* to the front page of the daily tabloid newspaper.

The editor of the large-format paper needs to be told that the front page is a cover. The tabloid editor has known it all along. He cannot hope to pack all the news onto Page One. The most he can expect is to give the biggest story of the day the display it merits, then tempt the reader to the inside pages. Often he may have groaned over this very limitation, yet it is probably the factor which gets the best results for advertising.

Tabloid newspapers can be safely divided into two schools: (1) Those which run only heads and pictures with captions on the front page; (2) those which play at least one big news story on Page One.

The Tabloid Pictorial Front Page. Display on the tabloid front page faces two difficulties. One is that the use of large head type, necessary to sell the paper on the newsstands, permits only a very short count of letters and spaces, so that it is something of a feat to state the news intelligibly. It is for this reason that the tabloids resort to so many nicknames and labels for people in the news. Good taste should draw the line against some of the short cuts in verbiage. Yet often it can be said that a slight loss in dignity is compensated by the liveliness of presentation, provided of course that this does not descend to vulgarity.

The second difficulty springs from the fact that a very large proportion of the best newsphotos are horizontals rather than uprights. A cameraman photographing a street scene, a mob in action, or a group of people in almost any important news event finds he can include more and therefore tell the story better if he takes a horizontal shot. If the horizontal picture is blown up to

the full width of the tabloid page, it leaves, when nameplate and headlines have been taken care of, another horizontal band on the page. To fit another horizontal picture below it seemed to many editors to give an awkward appearance to the front page.

The layout most frequently resorted to in order to avoid this stumbling block has been one in which three news shots were grouped; one a long narrow picture of a person walking or running, then a horizontal shot reduced to fit the width of the page beside this, leaving a space below the horizontal into which cutlines and a small picture could be fitted (Fig. 28). The trouble with this arrangement is that it so often necessitates use of a long narrow picture for layout purposes only, not because the picture itself is interesting or important. Also, if the horizontal was the really important picture, this layout fails to dramatize it. Long thin ladies and gentlemen stepping out of tabloid front pages get monotonous after a while, and even the public may begin to wonder why they are there.

Fortunately, the tabloids have been experimenting, too, with modern layout ideas and many new and dramatic ones have emerged. When the news story was a really tremendous one, as in the case of the Hindenburg disaster, they boldly spread the horizontal news picture across the back and front pages. It is interesting to note, in examining these illustrations, that there was no choice but to play the horizontal newsphoto of the burning Zeppelin in this fashion, or to reduce it to a size entirely unworthy of its news value. It is noteworthy that the New York *Daily News* and the New York *Mirror* both adopted the same—and seemingly inevitable—solution.

Frequently the news value of a picture is not so great that it merits the sweep of the back and front pages, or the picture itself is not suited to such treatment. What then? One modern answer is frankly to accept the necessity imposed by the pictures themselves and divide the pictorial part of the front page into *two horizontal bands*. These can be made effective by a difference in depth, the top band wider than the lower band, and still greater originality and interest have been obtained by double-printing a banner line on each. By double printing we mean that the banner line is set, a proof on coated paper stock pulled, and this in turn photographed by the engraver and printed onto the metal with the picture in process of making the halftone. As

FIG. 28.—Tabloid front-page layout must cope with the short count of heads and the fact that the average news shot is a horizontal, which if scaled to the full width of the page leaves a narrow strip below. The most usual solution is shown here.

we have already seen, a page divided into horizontal bands can have rhythm or wave motion, and, even if aesthetics had to be sacrificed, there is no doubt that this would be the sensible way to play two powerfully dramatic news pictures, both horizontals, on a tabloid front page.

In his search for variety in front-page layout the tabloid editor should not overlook action in the human face as having vital appeal. There are now available wide selections of candid pictures of personalities in the news. A personality strip of three heads might take the place of the person walking so often used for makeup purposes. Cutlines under each face, referring to the page where the story may be found, give the reader that many more reasons for looking at different inside pages. If a good action shot is blown up to occupy the larger space beside this personality strip, the possibilities of the front page will have been exploited to excellent advantage.

Complete cutouts of faces that are in the news have been used in combination with large headlines to give an effective tabloid front-page layout (see Fig. 22). Headlines and pictures work well together in such a scheme, both to sell the paper and to get it read, particularly if each story represented on the cover is played on a different inside page. The editor should never forget that his job is to get the reader to turn to as many pages as possible. Even in the tabloid, if all interest is concentrated on Pages Two and Three, there is less chance of the advertisers getting the full return on their investment.

Very often the picture combination seen on the tabloid front page has consisted of a thin upright, a horizontal, and a picture cropped in a circle to fill out the space below the horizontal. There is nothing to recommend such an arrangement. It combines shapes which do not harmonize, into an ensemble which lacks a feeling of motion or rhythm, and is probably therefore the poorest form of display that can be used. Though the layout man may think he has achieved variety, as a matter of fact the effect is one which fails of surprise value or "shock."

Surprise is a vital factor of layout. A daring action photograph offers enough surprise in itself, and the problem is therefore to play it large enough to enable it to make its full effect felt. Often the cropping has much to do with this. By paring off background that is not needed to tell the story, the action part

of the picture can be blown up to the maximum size. In the case of candid shots of faces, surprise may often be achieved by cropping off the top or back of the head, by tilting the head, or by any device which takes the display out of the usual pattern.

While circles have been misused, the possibilities of the segment of a circle have been overlooked by the tabloid. A quarter section of a circle will combine more harmoniously with an oblong or oblongs and has the added attraction of "incompleteness" which we discussed under picture layout. Of course not all news pictures lend themselves to such cropping, but it is one to keep in mind when the right pictures come along.

Photomontage, though not recommended for front-page use in newspapers of large format, can sometimes be employed effectively on the tabloid front page, combining several shots of *a single news story* for a smashing dramatic effect which might not be obtained from one shot alone. If used only occasionally it can lend variety to front-page appearance. It takes a little more time for photomontage in the art department, but the tabloids, as they have always used a great many pictures, are usually better equipped to handle the job quickly. In thinking of photomontage for the tabloid front page it must not be forgotten that this is a form of *instantaneous or single impression layout*, as we have explained above, and *is in no way suited to a layout of pictures on several different stories* nor even to a layout on one story, where a single newsphoto will give the news dramatically. Such a photomontage might fill the entire picture space on Page One, or it might be used in combination with a long narrow shot. The segments of the photomontage must remain large enough, with the scenes or faces they display sufficiently large, to have the necessary poster value for the newsstands.

To sum up what we have said concerning the pictorial tabloid front page: (1) its purpose is to sell the paper and to get the paper read; (2) it does not lend itself to any but the simplest asymmetric layout forms; (3) the picture space may be used for a single dramatic news shot; or (4) a news picture with tremendous dramatic and emotional values may be spread over front and back pages; (5) the picture space may be divided into two perpendicular panels of unequal width and the narrower of these panels may be a single news photo or may be a strip of candid shots of people in the news; (6) a photomontage may fill the whole picture

space or be used for the wider of two perpendicular panels (but should never of course be combined with a strip of candid shots); (7) the picture space may be divided into two horizontal bands of unequal width, with or without double printing of headlines; (8) a picture cropped as a quarter circle may be combined with an upright and a horizontal to fill the picture space or may be large enough to fill the space alone, in combination with cutlines and display type; (9) large head type and candid shots may be effectively combined to give bold display to several stories.

Tabloid Front Page Using Stories and Pictures. A few tabloids, like the Washington (D.C.) *News*, display both pictures and stories on the front page. Some interesting comparisons can be made between this Scripps-Howard tabloid and the *Daily News* in New York, which uses only pictures and headlines on Page One. The Washington paper uses a slightly larger format, a 12½-pica column instead of the 12-pica column used by the New York *Daily News*, wider margins, and a printed page on which the columns run about 1½ in. longer. The difference in format, however, is not sufficiently great to affect comparisons.

The Washington *News* plays the "one big story of the day" in bold headlines on Page One, as often as possible with its text complete, thus carrying out suggestions we have made for using the big story to sell the paper. A second story, of a popular human-interest variety, may get a large picture display on the front page and frequently begin with a few paragraphs under the picture, then jump to the inside of the paper, thus getting the reader to open up. A third important story may begin on Page One and jump to the inside. There is likewise usually a secondary picture on the front page, covered in a cutline. In criticism of this page it might be said that, while it is interesting and has poster value and selling power, it is not given the *cover* value it should have; that is, the front page does not serve so much as it might to get the reader into the paper. Photographs with cutlines referring to stories on the inside pages would do that job better. A third story on so small a page might well be eliminated to make room for bold bulletins advertising several of the biggest stories and features the paper contains, with page numbers where they can be found.

One story carried on the front page of a tabloid can have value, if only to distinguish the serious tabloid from the more sensational

one. Visual impressions produce strong psychological reactions. Many people who unconsciously associate the word "tabloid" with less dignified handling of the news can be won over to this more convenient format simply by seeing stories of a more important nature headlined and a certain amount of body type on Page One. It takes the newspaper out of the "picture paper" class for them.

Usually two pictures, one large and one secondary, will be enough for such a page. If a 3-column picture is used on the left, the lead story will take a 2-column lead on the right. A 3-column may be used in the center, with two stories in 1 column on either side. A horizontal news shot can be splendidly displayed on such a page in 4 columns, with a 1-column lead on the principal story. A 3-column horizontal will probably look larger on a page with type than on one using only pictures, and a 3-column upright will be most effective. The secondary picture should be placed to create diagonal feeling in the layout and can be 1 or 2 columns wide, horizontal or upright. Instead of the secondary picture, a short 1-column personality strip of three heads, fitted into the outside column or into the fourth column below a bold face 2-column lead on the big story, with cutlines under each picture referring to a different page of the paper, would give the front page excellent cover value.

In comparison with the *News* in Washington, the New York *Daily News* is much more conscious of the function of the front page to lead the reader into the paper. Not only is the layout treatment more dramatic—perhaps too dramatic for the Washington paper's needs—but the headline carries such a reference line as "Story on Page 3," and the pictures carry similar references. When layout permits, a bulletin is used announcing other inside stories and pictures.

A tabloid must not of course forget the class of reader to which it is directing its appeal, but quite within its own field, it can seek a maximum of cover values for Page One.

A. APPLICATION EXERCISES

1. Take a recent copy of the New York *Times*. Either paste together copy paper to make a layout sheet the size of an 8-column newspaper page or secure a similar-sized Bristol board or piece of wrapping paper. Using the news, feature, and editorial contents of your selected issue of the *Times*, and, so far as possible the pictures in that issue, lay out a front page in such

a way as to attract readers to buy the paper and to read as many as possible of the inside pages, by the use of:

a. A vertical strip of rhythmically sized pictures (determine your own dimensions) with cutlines to direct readers to stories, features, or editorials or further pictures on inside pages;

b. A blurb article, giving bulletins of inside page material indicating where full treatment will be found;

c. A "diagonal feeling" makeup;

d. The biggest story of the day handled with reasonable completeness on the front page, including an *instantaneous effect* news picture;

e. A brief but effectively presented direction as to where a full table of contents will always be found.

Do not use the "bull's-eye" rectangle device in this layout. Fill out your layout, if room remains, with what you think will most effectively follow the principle of "giving the reader less—yet considerable—on Page One, and promising him more" on the inside pages.

2. On a similar-sized layout sheet, using the same contents of your selected issue of the New York *Times*, lay out a front page along the lines used by Gilbert P. Farrar for the May 1, 1937, issue of the Toledo *News-Bee*.

3. On a third layout sheet, using the same contents, lay out a front page after the manner of the May 24, 1937, issue of the New York *Evening Journal*—the four-quarter plan.

4. On a layout sheet or Bristol board the size of the New York *Daily News*, lay out a tabloid front page of the New York *Daily News* style, using a picture or pictures from your selected issue of the *Times*, indicating the desired blowup and writing your own headline from news in this issue of the *Times*.

5. Indicate in a typewritten statement of not more than 500 words one or two ideas of your own, not explained in this chapter, which you believe might be favorably accepted in your home town, or college town, to give the leading newspaper of that town greater poster and inside-page value.

Do not suggest things in any of these exercises which are impracticable with respect to modern printing equipment or advertising agency restrictions (see Chapter XI, "Page Layout").

B. CHAPTER-ORGANIZING QUESTIONS

1. What advantage is there in having headlines flush to the left? What is the advantage of upper and lower case headlines over all-capital headlines?

2. What should be guarded against in dropping column rules?

3. In what way have conservative magazines like the *Atlantic Monthly* and *Harper's Magazine* long been ahead of newspapers in giving reader-interest value to the pages which contain the advertisements?

4. Why will jumped stories not lead readers into the inside pages?

5. What is the psychological reason for playing up the biggest story of the day on Page One and making all other stories minor in treatment of that page?

6. Describe how samples of the best news picture coverage for the day may be displayed on the front page.

7. Explain how candid pictures of people in the news can be made a semi-permanent feature of Page One.

8. Explain how horizontal bands of action or personality pictures can be used on the front page. Explain any objections you may see to doing this for certain papers and certain clienteles.

9. What restrictions are there in displaying news pictures in tabloid-size papers? How have tabloids attempted to combat these restrictions? Cite at least one illustration which actually occurred.

10. Why is a photomontage of pictures from several news stories not suited to front-page display?

11. What is the essential difference in front-page display used by the New York *Daily News* and the Washington (D. C.) *News?* Why is each policy probably better suited than the other would be for the particular clientele involved?

Chapter XVII

LAYOUT ON INSIDE PAGES; MAKING IT SERVE THE ADVERTISER

PREVIEW QUERIES

Why are advertisements in many newspapers banked in "pyramid formation" in the lower right-hand corner of inside pages? What objections may be offered to this plan?

Do your own reading habits, or your observation of others', support or reject Dr. George Gallup's statement that "We have developed a nation of front-page readers"?

Why are inside pages sometimes referred to as the "dust bowl" of journalism?

If the "glut of occurrences" which makes the variegated and complicated news in large newspapers were presented under departmentalized headings such as "National News," "Foreign News," etc., would it please or displease you?

What objection is there to departmentalizing news on the front page?

Why is it difficult to present the background of complicated news if all major stories are begun on the front page? How does a competent presenting of "background material" increase reader interest?

How may news be reasonably departmentalized on inside pages without deadening the appearance of the makeup?

Can you think of a way in which advertisements can be placed on 5-column inside tabloid pages to secure effective display without pyramiding?

THE proper handling of inside pages of the daily can only be decided after front-page procedure has been determined. If the newspaper is one which still jumps many long stories from Page One, space for these jumps will naturally have to be found on the inside. If it is one of the forward-looking papers which realize that this cumbersome method is ineffectual from the standpoint of reader reaction, then it will have cleared up its front page in one of the ways described in the preceding chapter, or in some other fashion suited to its needs, and will be ready to go ahead with plans for more effective pages inside.

The picture presented by many inside pages today is that of a jumble of large and small ads pyramided in the right-hand corner, a few heads at the top, and the bottom of the page below the fold ruled off for jumps. Often a one-word jump head is used, because it is easier to find the jump in this fashion than if it carried a news head. The jump head in itself has no visual interest or attraction, the long jump from the front page is frequently broken only by a few small subheads, and so the part of the page below the fold and next to advertising must strike the reader's eye as a gray, dismal waste, or, rather, it is so neutral and self-effacing in appearance that he never consciously glances at it. When, to cap the climax, the top of such a page carries early "filler" stories sent over the wires by the press associations, with 1-column heads and no pictures, or at best a 1-column cut out of the newspaper morgue, the reading interest on the page is nil and its graphic appeal is nonexistent.

There are few editors who do not complain that they "haven't enough room for all the news." There are some who cost their paper large sums of money by having many columns of dull early copy set and proofread by the composing room and made up in the forms for the first edition, only to remove it and "kill" it before the second edition. It is not the purpose of this book, but of cost experts, to figure the appalling financial waste represented by daily overset (unimportant stories which were set in case needed, but never used) and by stories so slight in content that they were "killed" after one edition. When it is considered that this waste finally creates pages so lacking in appeal that they are never read by any but the most diligent, there would seem to be basis for the charge that the editor has more news space than he can handle, rather than too little.

Divide the Ads

Briefly, what such pages need is more thoughtful treatment from top to bottom. Ads should wherever possible be divided into two groups, at either side of the page, instead of being pyramided in the right-hand corner (Fig. 29). Instead of jumbling large and small ads, a better arrangement can be sought throughout the paper by combining ads of similar column width so that they extend from top to bottom of the page (Figs. 30 and 31). Thus the edge of the page might show a 2-column strip of ads,

while the fold might show a 3-column ad, or a 4-column ad at the bottom and a strip of 1-column ads running to the top. The ads themselves must determine the patterns used. A number of small ads may be combined into a single large block. The idea is to bring reading matter down through the page, to separate the ads, to provide increased bottom-of-the-page interest, and to get *more* ads above the fold, where they stand a better chance of being seen.

Every newspaper office is receiving today numbers of newsphotos from the press associations which do not "make the paper." Staff cameramen often take many more which are never used. The reason frequently given is lack of space. Yet scrutiny will prove that the news content of a large majority of these is higher than the content of the filler stories used. In addition, they have the property of being able to *spot the page* graphically, giving it a visual appeal and "pulling power." Column for column, halftone engraving costs less than composition of reading matter. There is therefore little excuse for the dull pages we see.

The editor dummying or making up inside pages should plan to use a newsphoto or a simple layout of one or two pictures wherever there is room for it at the top of the page and to make use of pictures at the bottom of the page when this is possible, for there is no better way to draw attention below the fold (Fig. 32). Of course a halftone should not be placed against an ad, except in instances where lack of space makes it advisable. Where the ad is large, light, and open in effect, and a small, darker halftone offers contrast of size and tone values, it may safely be used. A silhouetted 1-column face will stand away from an ad that has a halftone background. The tabloids need to make use of such arrangements; large-format papers may occasionally do so to break up a type mass.

A cut which is 1½ columns in width can sometimes be used close to an ad to good advantage, using ½-column cutlines to separate it from the ad, with plenty of white space above and below the caption. A full 2-column overline will look best in such an arrangement. Layouts of two separate cuts, each of which is 1½ columns wide, can be used advantageously on pages with ads, for they can be brought close together to give a 3-column spot, stepped off to accommodate the arrangement of the ads, with cutlines in one or both of the 1½-column mortises thus cre-

Two . Richmond Times-Dispatch, Saturday, January 15, 1938

National Affairs

Tax Changes Recommended By Committee

WASHINGTON (AP.)—Treasury experts have recommended drastic changes in the undistributed profits tax, but Chairman Doughton (D., N. C.) of the House Ways and Means Committee said today he would not consider any tax revision bill before the committee completes hearings on the general revenue revision measure.

Doughton's statement was made after Secretary Morgenthau and Undersecretary Magill had conferred with the committee on the undistributed profits tax.

Magill said the Treasury recommendations for changes in the tax would be presented to the committee in writing tomorrow.

Doughton said the committee would not consider the Treasury proposals until it completes hearings on the general revenue measure.

Magill declined to say what the Treasury recommendations are, but it was understood they would provide for a flat rate of 27½ per cent on undistributed profits.

Under the present law, corporations pay a normal tax of 12½ per cent on undistributed profits and a surtax ranging from 2½ per cent on profits of $2,000 to 27½ per cent on profits of $5,000,000 or more.

Magill said the Treasury would also recommend changes in the capital gains tax, but declined to say what they would be.

Under the present law, capital gains are taxed at the same rate as ordinary income, but the Treasury has proposed that capital gains be taxed at a flat rate of 15 per cent.

Magill said the Treasury would also recommend changes in the capital losses tax, but declined to say what they would be.

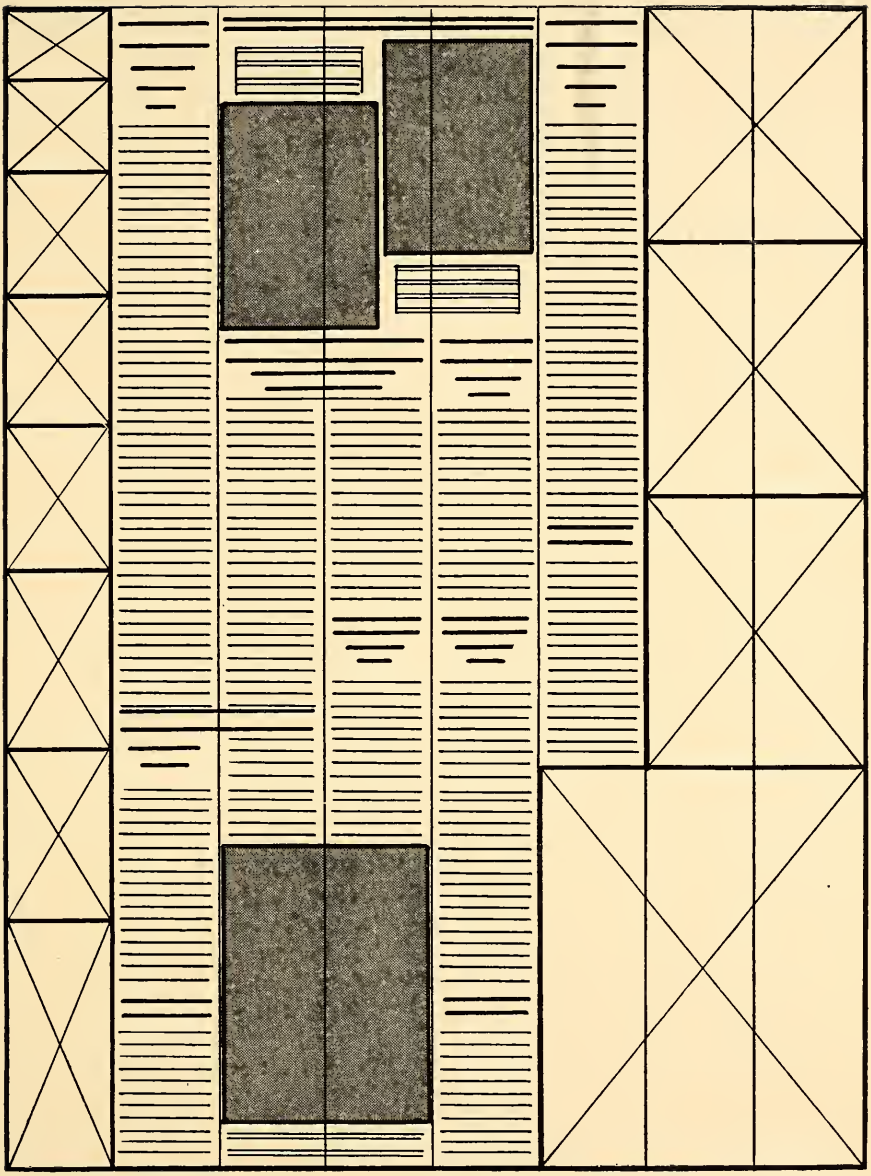
Under the present law, capital losses are allowed as a deduction from ordinary income to the extent of $2,000 plus the amount of capital gains

ated (Fig. 30), separated entirely to give two spots in the page layout, or, finally, one can be dropped if the page becomes overcrowded with ads.

When pictures are used at the top of the page, they should carry an overline unless they are placed just below a banner line, when the overline should be dropped and only underlines used. Some papers use banners on inside pages, but most do not. However, there should be head type across every column, and no stories should be turned into the next column "blind," that is, without a head. The darker head type across the top of the page, with picture layout and cutlines in bold face, gives the page increased graphic appeal. This top of the page layout draws the reader's eye, which must then be led down the page by proper spotting of the columns. If jumps must be used, they might be relieved of their gray typography by setting all quotes, or at any rate some paragraphs, in boldface and possibly in larger type and by breaking up the type matter with subheads. It is better still to have one or more important heads at least in 24 point, below the fold.

Sometimes a regular daily feature column of popular interest may be used to run down beside or between the ads, its typography broken up by lightface and boldface paragraphs and subheads and by a ½-column cut of the columnist or a series of ½-column cuts, placed alternately to left and to right, or in groups of threes (see Fig. 38*A*). Everything that can be done to take the bottom of the page "out of the gray" is apt to help keep the newspaper publisher "out of the red."

Of course, one thing that has worked against better treatment has been the necessity for closing many pages of the paper early. All pages cannot be held open until the last story is in type. Several hours before press time the flow of finished pages to the stereotypers may have to begin. Editorial pages, woman's pages, and any other pages which have not the timeliness of big news usually begin the procession. Then follow the inside pages carrying news and advertising. As soon as advertising composition and makeup on a page are complete, the editorial man tries to place enough stories to fill it up and let it go. For the express purpose of getting rid of the back pages he has probably seen to it that plenty of early copy was set, and this he orders into the forms, with little regard for its content or reader pull.



Layout by Laura Vitray; art work by S. F. Perkins.

FIG. 30.—Modern layout for an inside page. Ads are stacked to left and right in panel arrangement, the small ads separated from the larger ones. News cuts in 1½-column width offer flexibility. They may be combined as here, or one may be dropped and cutlines used in ½-column measure. "Interlocking" heads and art lead the eye below the fold.

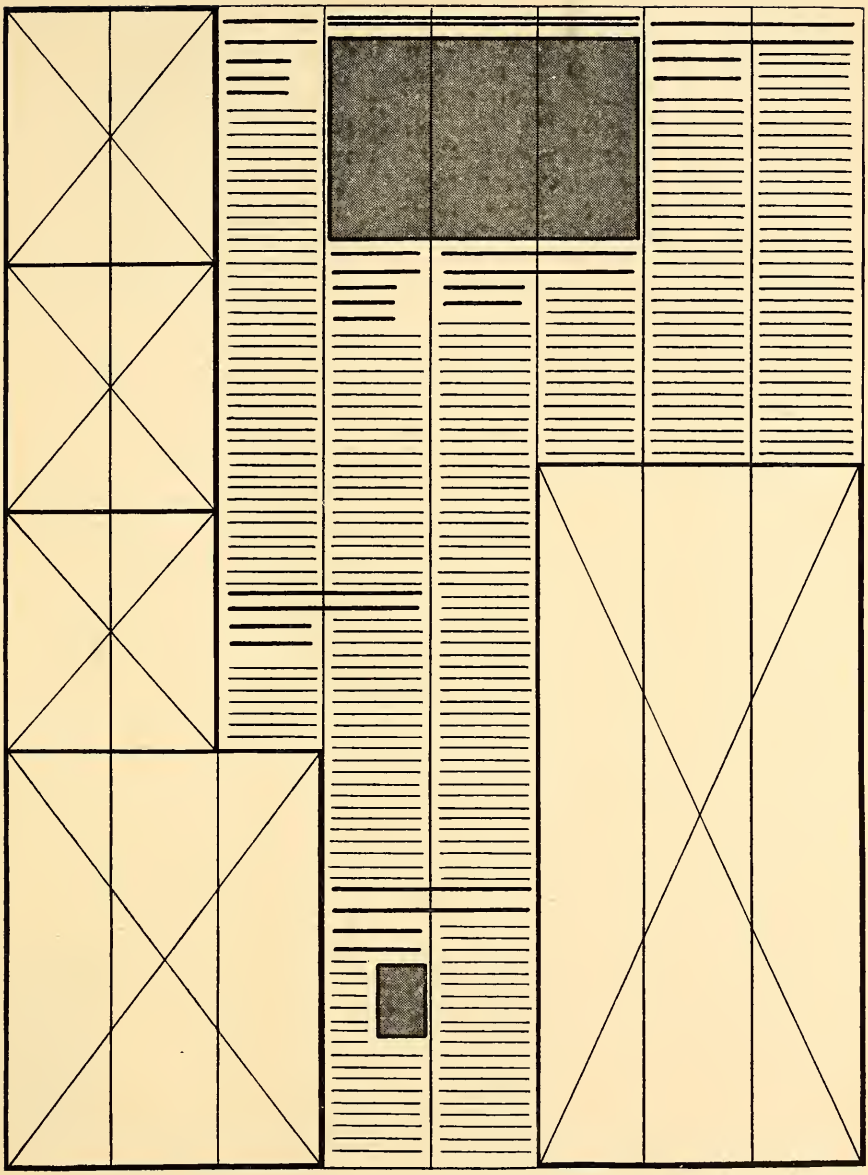
When that sort of editorial method is followed, it not only results in a dull newspaper but in the necessity for breaking open many back pages between editions, to get some of the dead wood out. Make-overs and replates cost the paper more money than it would seem at first sight. When practice runs to a great number of them, there will be a larger composing-room force, more stereotypers, and more pressmen.

Getting rid of the back pages may be an important problem, but it is not one that can be rightly solved in a trice, while the stereotypers and printers wait for the words of wisdom to drop from the editorial man's lips. The problem goes far behind that, to foresight in providing really interesting feature stories and pictures and other matter which can make the pages carrying advertising alluring. In this respect American newspapers can learn many lessons from the more popular English newspapers, most of which separate the ads in the manner we have described and use great variety of pictorial and typographical device to make pages with ads lively and spritely in appearance. Stories are brisk, short news items or features, chosen for their dramatic or humorous or human-interest values. They are enlivened with good newsphotos and with interesting typography. Often 10 and 12 point type is used, paragraphs are set in boldface, headlines employ an underline. We are not defending these English papers particularly for the clean-cut display qualities of their page layouts. They sometimes run to the extreme of overdisplay, which makes them appear jumbled. Yet they do not have the dullness of dreary gray typography to be seen in our own great "inside-page dust bowl" of the news.

Irrigating the Dust Bowl

Here and there in this country editors have been experimenting with the dust bowl and trying to find solutions for its drought. Close on the heels of the English papers are the Des Moines *Register* and the Des Moines *Tribune*, with shorter stories, more pictures, and greater typographical interest. Ads are still pyramided and stories are jumped from Page One, but an effort is made to get layout interest *below the fold* by means of pictures, larger heads, and boldface type.

A radically different remedy has been sought by the Richmond (Va.) *Times-Dispatch*, which plays a variety of big news stories



Layout by Laura Vitray; art work by S. F. Perkins.

FIG. 31.—A modified panel arrangement of ads. If the advertising department dummies ads of similar sizes on a page, the small ads will not be overshadowed by the large ones. When small ads are stacked beside large ones, often they get few results, though a large block of small ads may have good pulling power.

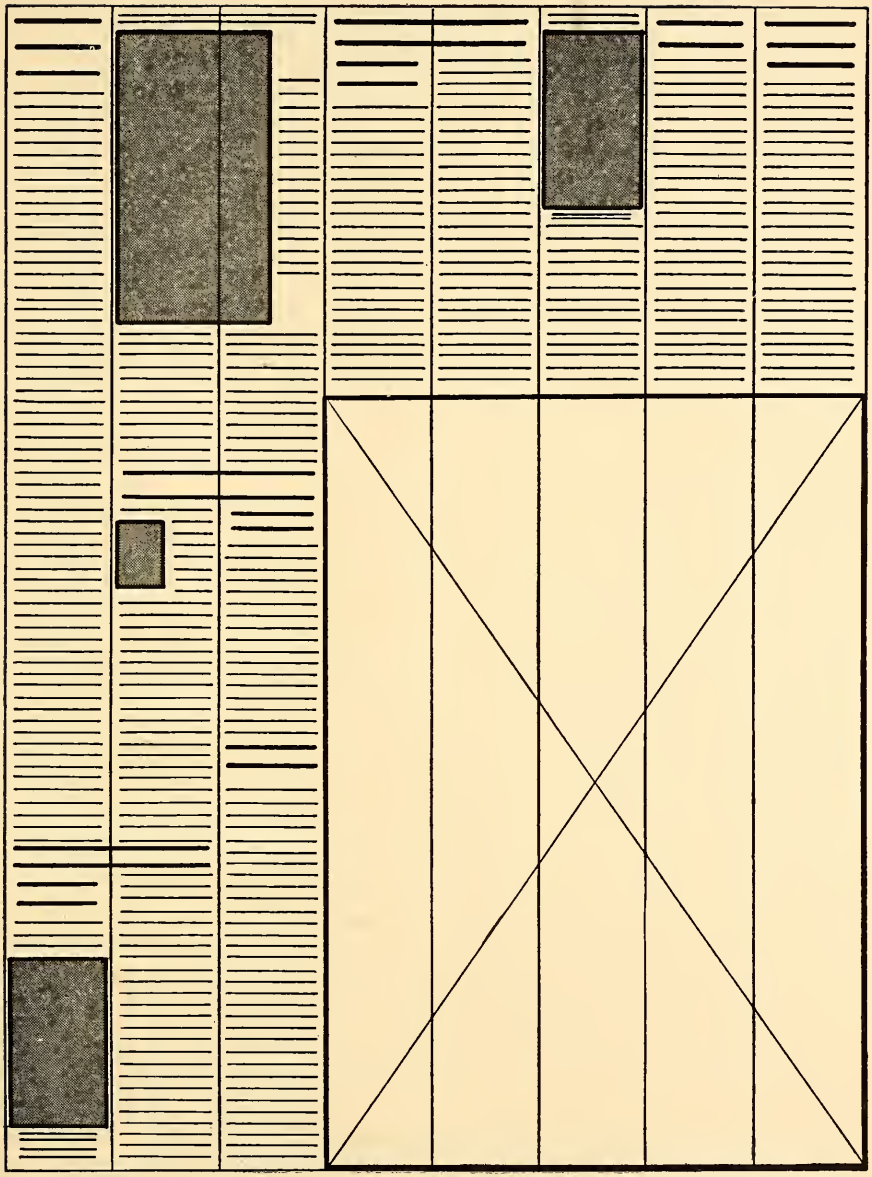
on the front page briefly and without jumps; and departmentalizes all other stories under such headings as "National Affairs," "Labor," "State and City," etc., so that the inside of the paper is reminiscent of *Time* magazine (Fig. 29). Department heads are set between parallel rules at the top of each page, and stories carry regular news heads, without banks. This has the advantage of scattering short news stories through all the pages. That is a step in the right direction, yet it seems very doubtful whether a makeup directly imitative of *Time* is suited to a large-format daily paper, which is not handling a digested summary of last week's news, but today's news as it occurs. The news-magazine treatment has become associated with past events in many people's minds, and that is an excellent reason for avoiding it.

We pointed out in discussing front-page layout that a departmentalized treatment copying that of the news magazines would take the pulse of life out of the news that is breaking and reduce big, dramatic events to a rigid form which would interfere with their reader appeal and with their play according to relative news values. Some believe that American editors have gone too far in assigning to themselves the power to decide which stories are "big" and which are "small" and that such treatment of vital problems amounts to editorializing. Perhaps the criticism is justified, yet there is a healthy enthusiasm about playing the news for its big crises and dramatic surprises, which does sell papers and does hold the reader's attention. What our papers need, if they are to continue in existence in the face of radio and newsreel competition, is more drama and not less of it.

The attempt to departmentalize news on the front page is mistaken, because it deprives the big stories of their proper play. When we move the news to the whole inside of the paper we have more room, and sorting and classifying is no longer inconsistent with dramatic presentation. News-magazine makeup is not dramatic enough and should not be imitated even here.

Better Sorting of Material

The horizons of news have broadened immeasurably even in our generation. News pours in on us from everywhere, and we need more system if we are even going to attempt to understand what it is all about. Our own interests and sympathies have been rapidly broadening since the World War and the depres-



Layout by Laura Vitray; art work by S. F. Perkins.

FIG. 32.—Pages with large ads are easily "spotted" if art was ordered in convenient sizes. Cuts in ½, 1, and 1½ column widths are easier to place than those in wider measure.

sion. We really want to know about things that are happening in Paris and in Shanghai, in the cotton fields of the South and the coal mines of Pennsylvania, in Wall Street and the Supreme Court and the President's office. We want to know, too, about the airplane that plunged into a mountainside, and the reporter who circled the globe in 7 days without getting a scratch. We are intensely interested in royal romance, but also in the poor mother who killed her baby because she had no food. What is more difficult still, we no longer care to picture all this as a kaleidoscope, but we wish to be able to discern how it all fits into the portentous or the hopeful destiny of our modern world. That is reader reaction at its best and most intelligent, and it includes many millions of Americans today. For them, a news hodgepodge is not quite good enough.

We have got to plan the whole paper better, *bringing related stories closer together* and emphasizing these relationships by proper grouping, by pictures and layout and typographical aids. This is one urgent reason why the hodgepodge front page has got to go. When we move the news inside the paper, we can sort it better, although we do not need to force it into a rigid layout mold, as the news-magazine makeup would do. We must eliminate "filler" because the reader does not wish to be bothered by unimportant stories; but we must not deprive him of real human-interest news. We must plan to give him more of the news in pictures, because newsphotos tell him a host of things which words cannot. They make him *realize the news.*

In a paper such as we envisage, stories relating to national affairs will be grouped together, on a single page if possible. The same will be done for labor, for foreign affairs. City news will have its own grouping and may extend over several pages. Human-interest features and pictures will enliven the makeup of *all these pages.* The news coming in over the wire will be culled for at least one high-light story of a personal or dramatic or humorous nature that can be given special treatment in the page layout to lift it out of an appearance of hard reading. Reporters on the city staff will be given assignments of this nature, too.

We may be deeply interested in national affairs, yet the page presentation of such news may look so pedantic, so voluminous, so dry as dust, that we shrink from attacking it. The impression is probably borne in on us by too much small body type that is

hard to read, too many unbroken type masses, too little headline display, not enough pictures, not enough "relief" in the way of stories in lighter vein, so displayed in the layout that we know they are there for us. Take the same page and give it a picture layout with motion, reasonably bold and black heads for the biggest stories, which are treated with 14-point boldface, double-column leads, and part of the story in 10 point; box on the page a boldface summary of the whole national news situation, including something of what led up to the events today; boil the less important stories down so that they do not bore or frighten us by their length; and place at the bottom of the page a humorous side-light story of how the President had his tooth pulled or how the White House dog ran away, with a picture if you have one. Suddenly the affairs of the nation, which in fact concern and interest everyone, become *something palatable* which everyone desires to read. Take the same material and run it in uniform typography under a heading "National News," with small uniform heads for the separate stories. Now, on a large-format page, it looks like *something to study*, perhaps important but only to be attacked when the reader has plenty of time. He loathes lessons anyhow, even when they are vital ones, so he will probably skip it.

Some editors imagine that some of the news, like politics or foreign affairs, is "over the heads of many readers, especially the women." The answer is that all people are interested in what affects them. If it does not affect them, why publish it? What is its purpose? Yet the stories themselves, however they concern the reader, only speak to him if he reads them. Layout speaks to him *before he reads*. One manner of treatment whispers to him that this is formidable material which only a superman could understand, and that he had better let it alone unless he has a university diploma. The other kind of layout does a real job for him, making things he ought to know stand out so his eye spots them and suggesting to him by its whole visual appeal that here is something *meant for him*.

Women as well as men will read that kind of page of national news, or foreign news, or whatsoever the news may be. Surveys of women magazine readers in all parts of the country have shown that attractive illustration and layout for a magazine story or article will send the reader interest to a high level, whereas a story, even by a favorite author, if badly presented, will be read

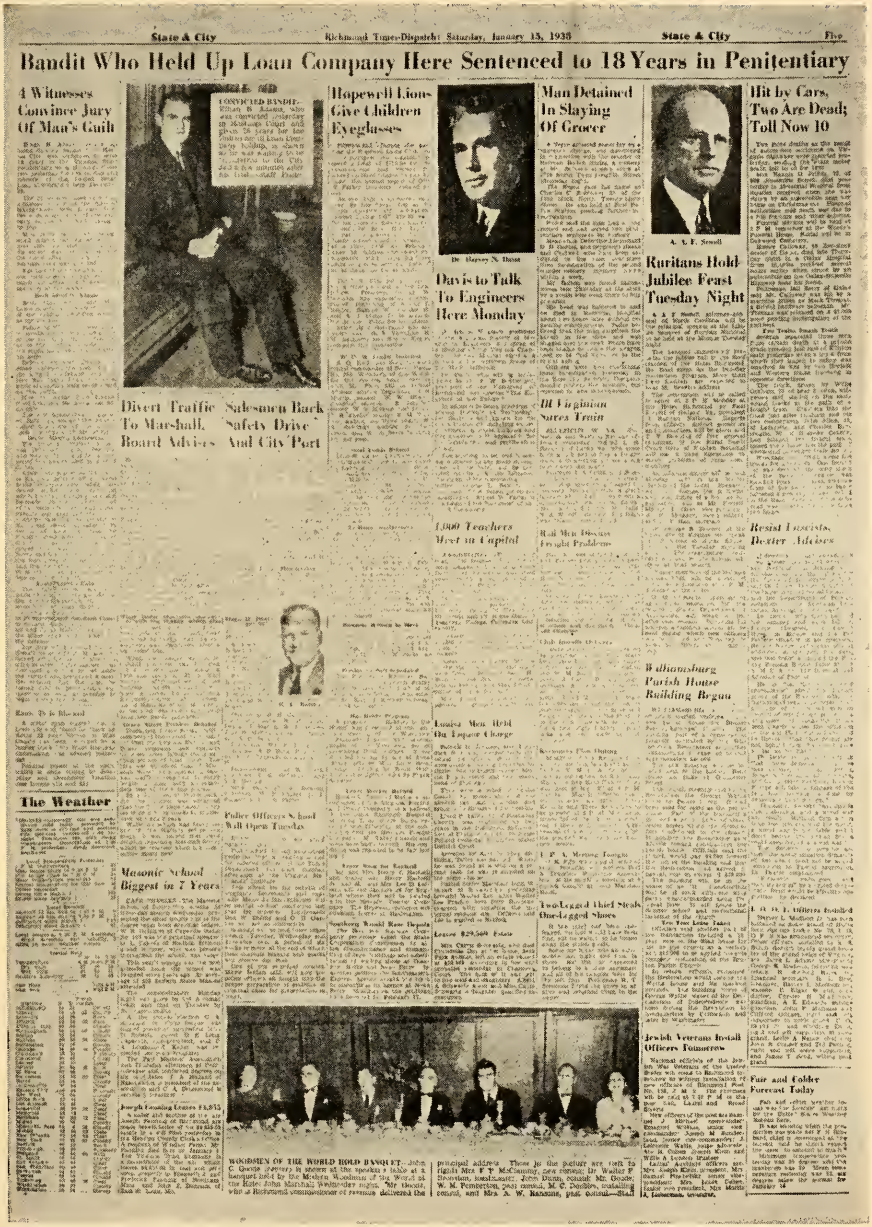
only by a comparatively small group. This psychological importance of layout and presentation cannot be overemphasized.

The modern newspaper should sort, classify, and coordinate the material for its inside pages. *It should give every page definite layout appeal.* If it does the first and not the second, it may go backward instead of forward in the matter of getting the whole paper read. Departmental headings, breaking into page layout, dam up the free flow of the makeup and rob it of dynamic qualities. On the other hand, there is no good reason why the kind of news on each page should not be indicated in a word or two of small type, to the right or left of the date line in the folio, just as the New York *Times* does in its Sunday sections, as an aid to the reader in finding rapidly a page he wants (Fig. 33). Ten-point lightface capitals should be large enough for such a classification, which *should not "spot" the layout* at all.

Background of the News a Factor in Layout

Taking the big news stories into the inside pages makes it possible to run them without jumps and with pictures. It also permits space for the "missing link" in news coverage today: the background of today's events. We mentioned the possibility of using as an element in a page of national news a boxed summary of related events, or an explanation of previous events which led up to the general situation covered in today's stories. Help of this sort is needed if the reader is expected to grasp much of the complicated information, political, economic, technical, etc., with which the press bombard him. He may not be a financier or a political economist. He may have missed yesterday's development and so not understand today's. If he is not a research chemist he may be frightened if he is told that "oil extracted from whole wheat caused cancer in 100 per cent of the rats on whom it was tried," for he may not previously have followed the scientific news of such experiments.

Fiction serials in magazines usually carry a bold résumé of "the story so far." History as reflected in current events is another kind of serial story, requiring much the same thing. The Washington *Star* first experimented with boxes of background information inserted in the type of front-page news stories. Other newspapers have followed its lead, because the idea answers a modern demand which only the news magazines had been



State & City — Richmond Times-Dispatch Saturday, January 15, 1938 — State & City — Five

Bandit Who Held Up Loan Company Here Sentenced to 18 Years in Penitentiary

4 Witnesses Convince Jury Of Man's Guilt

CONVICTED BANDIT—William B. Adams, who was convicted yesterday in Hustings Court and given 18 years for the robbery of Union Loan Corp. building, in which he had waited on the cashier at the city desk. (Times-Dispatch Photo.)

Hopewell Lions Give Children Eyeglasses

Man Detained In Slaying Of Grocer

Dr. Harvey N. Davis

Davis to Talk To Engineers Here Monday

A. F. F. Sewell

Kuritans Hold Jubilee Feast Tuesday Night

Hit by Cars, Two Are Dead; Toll Now 10

Divert Traffic To Marshall, Board Advises

Salesmen Back 'Safety Drive' And City Port

Ill Virginian Nurses Train

1,000 Teachers Meet in Capital

Rail Men Discuss Freight Problem

Resist Taxpists, Dexter Advises

Williamsburg Parish House Building Begun

Two-Legged Thief Steals One-Legged Shoes

Jewish Veterans Install Officers Tomorrow

Fair and Colder Forecast Today

The Weather

Masonic School Biggest in 7 Years

Police Officers School Will Open Tuesday

Joseph Fleming Leaves $3,915

Louisa Men Held On Liquor Charge

Leases $29,500 Estate

Hamburg Road Race Begets Protest

WOODMEN OF THE WORLD HOLD BANQUET—John C. Quesie (seated) is shown at the speaker's table at a banquet held by the Modern Woodmen of the World at the Hotel John Marshall yesterday night. Mr. Quesie, who is Richmond commissioner of pensions delivered the principal address. Those in the picture are, left to right: Mrs. F. T. McClanahan, new organist; Dr. Walter P. Bowman, headmaster; John Dunn, outside; Mr. Quesie; W. M. Pemberton, past consul, M. C. Jenkins, installing consul, and Mrs. A. W. Ransone, past oracle.—Staff Photo.

Fig. 33.—Departmentalized pages can avoid rigidity by running the group heading or classification of the news as part of the dateline. Note that this page is devoted to news of "State and City."

supplying. The front page, however, if crowded with all the big news, has little place for this too. When we group stories together in their right relations inside the paper, the background box can be given more scope and can also become a factor in spotting the page.

We have suggested radical changes in the newspaper, in order to produce an organ more suited to modern needs, one which will do its job better for the reader desiring intelligible information and for the advertiser who wants to insure that his ad will be seen. Briefly, all these changes may be summarized as follows:

Front Page. Dynamic layout featuring the one big story of the day and using headlines, blurbs, and newsphotos to entice the reader to the inside of the paper.

Inside Pages. News grouped and classified. Advertising no longer pyramided at the right, but separated into two panels, left and right of the page. Strong layouts depending on good headline display, newsphotos, and text type showing variety in size and tone and well broken up by subheads. "Spotting" for the page layout at the bottom as well as at the top.

Some Practical Aspects

Let us see what are the practical aspects of such suggestions. To begin with, a new plan for stacking the ads in the pages is a matter, not for the news room nor for the picture editor, but for the advertising department or, perhaps, the general manager. The advertising department dummies the ads into the pages and furnishes these dummies to the news room, as the first practical step toward building the inside pages of the paper. The ads are the physical starting point of each page, and it is not the editorial man's privilege to alter their arrangement. Any new plan for the paper will therefore have to be worked out carefully in advance, have the approval of the general manager or publisher and the cooperation of the advertising department. The managing editor or picture editor desiring to give his paper a modern layout and better graphic appeal may have to do some pioneering and persuading first. In the end it will have been worth his time.

Releasing Early Pages

Releasing early pages to the stereotypers should be no more difficult with a classified newspaper than it is today. Some

classifications will have to be kept open to the last minute because a big development is expected in a particular story, but others will be complete early and the pages containing them can be locked up and let go. If the news and picture editors have conferred on this matter earlier in the day, it will have been possible to plan for some of the pages to be complete early, with both stories and cuts. From the standpoint of replates and make-overs, such a system will save money. The paper which jumps all big stories from the front page must not only open up the front page for each new development but must tear up the jump pages as well. With the news well sorted, it will be discovered that most pages can stand through all editions. The public is not following every little hourly development in every little story from far and wide. Only a few of the most vital and dramatic developments interest it, and the rest can safely be held over for tomorrow's paper.

As we pointed out earlier in this book, the newspaper is no longer the *spot news medium*. The radio has taken over that function. Big spot news should of course be gotten into the earliest possible edition of the paper, but there is no real need to change the lesser stories constantly. Editors do so because they hope in this fashion to have a paper that is fresher and more interesting than their competitor's. This purpose could be readily accomplished by spritely layouts and good newsphotos with stories that had been carefully selected for their popular appeal.

Many newspapers today are agreeing with their competitors to reduce the number of daily editions, which represent staggering costs and still do not bring the reader the big news as rapidly as he can get it over the radio. What the public wants of the modern newspaper is a follow-up on the radio flash, one which gives thorough coverage in words and pictures. Rushing the paper onto the street with a one-paragraph bulletin does not always result in sales which compensate for the expense. Where there are fewer editions, there will be more time to give every page graphic appeal, which in the long run will be much more impressive to the reader than changing many secondary stories in each edition.

We have spoken of the expense to newspapers of type that is overset or that is killed after one edition. When more news-

photos are used it will be discovered that they do not involve a proportional overset loss. News that did not make the paper is dead, but many newsphotos will still be interesting to the public tomorrow. Of course if the opposition gave the picture a big play it will have to be killed. Otherwise it will be good tomorrow. The reader is conditioned to the idea of seeing the picture somewhat later than he hears or reads of the event. He goes to the newsreel theater for this very purpose. Days or weeks after the event he examines with avid interest the newsphotos from China, from Germany, from the explorers at the South Pole. The time element can therefore lag a little in published pictures without any loss of reader interest.

Even as filler for back pages, cuts are more economical than type. They seldom need to be killed. Sometimes editors forget to use the cuts they could not get into today's paper, which they ordered held in the composing room. For this reason the picture editor or managing editor should have a complete list of all cuts with the pages for which they were ordered each day, and should check this against the paper. A small report slip can be sent to each editor who ordered a cut which did not appear, asking him if it has been killed; if so, why; if not, on what date he expects to use it. Such a system will halt waste very successfully.

Newspaper Already Partly Classified

From a practical standpoint there is nothing unprecedented about classifying all stories in the paper. Classification already exists. Sports news is not scattered through the paper at random, wherever it can be used to fill a spot, nor are society news or women's features. Editorials and editorial features have a page, sometimes two pages, of their own. The same selective handling can be extended to the whole content of the paper. Greater mobility is essential to news pages and changes of layout must often be decided hastily. This does not mean that the makeup of the page should be left to the judgment of the printer. If the editor in charge of makeup has a thorough understanding of the rudiments of display, he will be able to see at a glance how to recompose the elements of the page to exclude old material and include new and still maintain display that is effective.

Tabloid Inside Pages

The tabloid inside page with advertising presents its own variety of problems, not always well solved, because they are more difficult than those of the large format. The layout man is required to give interest to reading matter on a 5-column page which may carry 2, 3, or even 4 columns of advertising. When he uses newsphotos he runs the almost certain risk of their colliding with the ads. What can he do about giving such pages reader appeal?

To begin with, tabloid facing pages should be treated with the idea in mind that *they will be seen as an ensemble,* much more than will two large-format pages. Such an approach will have an important effect on the placing of the ads. In this the tabloids could learn valuable lessons from magazines which nearly approximate them in size. The old, ineffective way of placing the ads is to stack them pyramid style on the right of each page. There are several modern ways of placing them, depending on size of the ads (Fig. 36).

Ads more than a column wide can be placed on the outer or left edge of the left-hand page and the outer or right edge of the right-hand page, leaving a block of type matter in the center of the 2-page spread (that is, type next to the fold on each page). This space, if large enough, can then be given a layout with motion or can be regarded as a visual unit. Of course, this is *not* to be construed as a suggestion that either heads or pictures extend across the fold, which they can seldom do. We are merely suggesting that graphically this space be regarded as a unit. For this it will be helpful if page dummies of facing pages are prepared at the same time. With the ads so placed, heads and pictures can readily be dummied into the center space in an arrangement which has balance with motion.

Ads may be effectively placed on two facing pages in vertical strips, with columns of reading matter falling between them. For instance, the right-hand edge of the page on the right might carry a full 3-column ad, with 2 columns of reading matter on the fold; then a full column of 1-column adds on the fold of the left-hand page, a column of reading matter next to it, then a column of ads, then reading matter, and finally a column of ads on the left-

hand edge of the page. This "striped appearance" gives the ads better display and can be worked out in various ways according to the needs of the case. Or the ads may simply be divided into three groups on the double-page spread, as in Fig. 36.

It will be unnecessary to give any pictorial display to single columns of type running down between the ads on such pages, for the ads themselves create a sufficient layout pattern. However, these will be good spots for important stories, starting with strong 1-column heads at the top of the page. Depending on the ads to be placed, the type spaces on some pages will be wider. Running from left to right on two pages we might have: 1 column of ads, 3 columns of reading matter, 1 column of ads, 4 columns of reading matter, and 1 column of ads. We could then place pictures in the 3-column and in the 4-column reading spaces.

To sum up these suggestions: (1) Ads may be placed to left and right on two facing tabloid pages to create a center reading space; (2) they may be stacked in full columns of varying widths, creating alternate stripes of advertising, or divided in three groups across the two-page spread. Layout with newsphotos will be done in the larger reading spaces, but the single-column spaces will be devoted to reading matter alone.

Halftones for the Tabloid

Because of its limited space the tabloid has been forced to greater ingenuity in the use of pictures. Sometimes its devices could be studied to advantage by the large-format papers, if only as possibilities of variety.

One-column cuts and ½-column cuts are made in two styles: regular oblongs with dark backgrounds and silhouetted heads. The latter give white space in a crowded page and can be placed beside advertising with less confusion to the eye. Large newspapers might use them to break up narrow type masses running down beside the ads. Silhouetted half columns are also light and lively in effect and can be used to spot a column of type nicely, placed alternately to left and right down the page.

The 1½-column cut, with ½-column cutlines on the side, is a tabloid standby. It accomplishes the double feat of reducing the picture to a space much smaller than the 2-column width would occupy and at the same time providing a little "air" or white space in the page layout. The average 1-column cut used

by most papers is about 2⅞ in. in depth. Tabloids, being obliged to use many 1-column cuts, often vary this with a short length (about 1½ in.) and a longer one (about 3¼ in. or more).

Dramatic newsphotos involving action are less used in the tabloids today than they should be, largely because they seem to take up too much space if given a proper play. The picture which would be given a 4-column spread in a large paper cannot get that play on tabloid inside pages. A good solution to this problem is to use "half-size" illustration when the newsphoto is good enough to permit the reduction. In other words, the horizontal which would normally be given 4 columns becomes a shallow 2-column cut. The picture which normally would be played in 3 columns also is reduced to a 2-column cut. These greater reductions would result in halftones which looked too diminutive on the large-format page, except for certain kinds of layout. They suit the layout of a large-format Sunday news review very well, for instance. On tabloid pages their proportional size is greater and, if well selected, they will reproduce with plenty of detail. Tabloids are apt to run to too many 1-column cuts, because these are most convenient to place. They also, however, become very monotonous with overuse.

A. APPLICATION EXERCISES

1. Obtain one copy each of two current metropolitan newspapers. Ignore the front pages. Examining all inside pages *except* editorial, sports, society, and woman's pages, list the number of pages in each paper which contain *no more* than one 2-column or smaller picture, which contain one or more "jumped" stories from elsewhere in the paper, and which have at least three top heads devoted to stories of comparatively low reader interest, probably early filler copy. Now list the numbers of pages, with exceptions noted in this exercise, which have *at least* two 2-column or larger pictures, no jumped heads, at least four topheads which seem to you to have high reader-interest value for the readers of that particular paper, and at least one 2 or more column head or other graphic means of attracting the eye below the fold. Be prepared to discuss the comparative reader interest of these two types of inside page.

2. Take two pieces of Bristol board or wrapping paper or blank newsprint the size of the pages in the two papers called for in Exercise 1. Eliminate from your consideration the spot news story, the human-interest or personality story, and the one large blowup picture or the three smaller pictures which you consider of greatest reader interest in this paper. Of what news remains in that particular newspaper, lay out two facing inside pages with a makeup which you believe would induce a majority of readers of the paper to read them. Indicate the contents of the news photographs based upon

news actually contained in the paper for pictures indicated in your layout, if adequate pictures do not actually appear in the copy of the paper selected. In these two page layouts, rearrange, if necessary, such advertising as actually appears on two inside pages of the paper which you use.

3. From one of the copies called for in Exercise 1, list all inside pages, eliminating those excepted in Exercise 1, which classify in any way at all the news contained on them as suggested in this chapter. On Bristol board or blank paper lay out one inside page which contains some classification of news which you did not use in accomplishing Exercise 2. Use only news which actually appears in the newspaper you select.

B. CHAPTER-ORGANIZING QUESTIONS

1. What advantage is there in dividing advertisements on inside pages, and in placing some of them at the top of the page?

2. Why should photographs be placed, when possible, below the fold of an inside page?

3. In what case may a halftone be placed next to an advertisement? In what case should it not be so placed?

4. How may layouts of two separate cuts, each 1½ columns wide, be used advantageously on inside pages, and where in so using them should the cutlines be placed?

5. What is meant by turning a story into a column "blind"? Should it ever be done? Explain the reason for your answer.

6. If a regular daily feature column is used on an inside page, how may its typography be livened, and where may it be placed on the page with particular commercial advantage?

7. How may a 1½-column cut be used in a 2-column space on an inside page without using an underline below the picture? What advantage is there in this method over the device of placing the caption beneath the picture?

8. What disadvantage is there in a newspaper's imitating a magazine's treatment of department headings for daily news?

9. Is there any definite evidence that a good news story or feature article will get more readers through attractive illustration and layout?

10. What metropolitan newspaper first experimented with the presentation of background information in front-page stories? What method of presentation did this paper use?

11. Explain why and how background information may be more effectively given the reader by a paper which adopts the policy of playing only one or two big stories on the front page and putting the rest of its big news on inside pages.

12. Why need the advertising department and the general management of the newspaper be consulted before the makeup editor can order a pyramid plan of stacking advertisements changed to a two-panel plan?

13. What different and more difficult problems does the tabloid format present in using panel or stripe advertising makeup? How may this difficulty be solved? What more difficult problem for making up with halftones does the tabloid format present than is encountered in the 8-column page? How may this difficulty be solved?

Chapter XVIII

EDITORIAL PAGE LAYOUT; SPECIAL PAGES OF THE DAILY

PREVIEW QUERIES

How many newspaper editorials have you read in the last week?

How many newspaper editorials or editorial features which started below the fold of the page have you read in the last week?

On how many occasions during the last week have you read as much as half of the editorial material which appeared on a newspaper editorial page?

Turn the pages of any recent copy of a daily newspaper published outside New York City, Washington, D. C., or Des Moines, Iowa. Does the editorial page entice your eye by its physical appearance apart from any reputation this particular editorial page may have gained with you by sheer virtue of intellectual content?

Ask the above questions of any five adult persons who are neither journalism students nor newspaper workers. Compare their answers with your own. To what conclusions do these data make you tend?

How many times in the last week have you read as much as 2 columns of non-advertising matter on the first page of any inside section of a daily newspaper other than sports?

What if anything *on these "split" pages* has induced you to read inside pages of that section?

How many times during the last week have you read more than one story on a woman's page? On a society page?

Turn the pages of any recent copy of a daily newspaper published outside New York City. Do the split pages, the society page, or the woman's page entice your eye from the standpoint of physical appearance?

How many times during the last week have you read the picture page of a newspaper?

How many of these picture pages have contained one or more local pictures? Do you habitually read all the underlines on picture pages?

THE editorial page and other special pages of the daily afford time for careful layout and therefore should be strong in presentation. Editorials may have dignity, but need not *look forbidding.* The average editorial page has an aspect that is utterly dreary. Its art often consists of one political cartoon in

the upper right-hand corner, with neither display heads, newsphotos, nor variety of typography to relieve the grayness of a sea of text type. Such dullness may correspond to pedantic leanings of the editorial mind, but it is not enticing to readers.

If the editorial page carries no advertising, it is one page of the paper which should set an example of dynamic layout. The elements out of which this layout is built are: the masthead, the editorials, one or more cartoons, letters to the editor, special columns, and, in the modern page, newsphotos.

The masthead, required by the postoffice, contains a statement of ownership, officers of the newspaper, its press association affiliations, subscription price, etc. This small block of type, headed by the paper's name, is sometimes given more interesting appearance by use of a small line cut. Well handled it becomes a factor in spotting the page layout.

Many newspapers use a wider column to set off the editorials from the rest of the material on the page. This can be accomplished on an 8-column paper by redividing the 4 columns on the left into 3 columns. The *World-Telegram* uses this method and drops the column rules out of the space devoted to editorials, while retaining them in the other 4 columns. The editorials are set in 8-point Bookman on a 10-point slug, instead of in the regular body type, thus giving them a slightly darker and stronger appearance in the layout. They are blocked off into a space in the upper left-hand part of the page, extending well below the fold. This is a good idea, for it makes the editorials a definite spot or oblong which can serve the purposes of the page layout. The column which occupies the space below this block carries a ½-column cut, and there is also a secondary cartoon at the bottom of the page. The New York *Post* resorts to boldface indented paragraphs to increase the graphic appeal of its editorials, which occupy 2 wide columns down the left-hand side of the page. Its cartoon is moved away from the fold, to allow for a 1-column feature on the right of the page. There is also a small humorous cartoon spotting the page at the bottom, and there is more display type on the page than usually appears. The Des Moines *Register* breaks up the layout of the editorial page with 2, 3, and 4 column heads, with a variety of ½-column cuts and an occasional small newsphoto. Boldface paragraphs help to relieve the grayness.

All these and many other editorial pages are reaching out toward some more interesting presentation, yet none of them can be said to have achieved anything that is outstanding in its effectiveness. Improvements of one sort and another have been made, but page layout as a whole is more a matter of accident than of design. Good typography is once again *not sufficient* to a right solution of the modern newspaper's problems, though of course it is a step forward.

The English newspapers show vigorous treatment of editorial page layout, lifting it out of the humdrum altogether (Figs. 34, 35, and 36). They use large type faces for heads on editorials and features on the page, and they use newsphotos to create an ensemble that has balance with motion and bold poster effect. Ten-point body type, plenty of white space, boxes, and underlines all help to create a presentation which has variety, spriteliness, and strong reader pull. American approach to editorial page layout is perhaps too timid, too awestruck by the ponderousness of the opinions the editorial writers have set forth. Most editorials deal with significant phases of news printed recently in the paper. *They concern live issues and have no reason to look so dull.*

There are very few editorials which could not be accompanied by news pictures, either of action scenes or of personalities who are making the news today. At present even ½-column cuts creep into the page apologetically. One and two column cuts, bold overlines, and headlines would inject new life into the presentation. This page, more than any other in the newspaper, should approach the front page in poster value. There is time to prepare it and nothing to interfere with its being the most striking page in the paper . . . except stuffy tradition.

Some don'ts for better editorial pages are: (1) Don't have blind columns at the top of the page; their effect is weak. (2) Don't run the cartoon at the top of the page without an overline. (3) Don't allow the page to be a sea of gray, that looks impossible to navigate.

Positive advice for the modernized editorial page is: (1) Use newsphotos and cartoons to spot the page in a *layout with motion.* (2) Use enough head type on the page to break its monotony and make the heads large enough to do just that. (3) Use boldface paragraphs or subheads or some other method

of breaking up type masses. (4) Aim at an editorial page that *looks* like interesting reading; then it may get read.

Ideas for Spotting the Page

Once the layout of the editorial page is done by a person who has in mind giving it strong graphic appeal, a great number of possible layouts will be devised. The layout may be varied from day to day, or a pretty habitual pattern, if it is dramatic enough, may be followed regularly. No attempt will be made here to suggest all possible forms the editorial page can take, yet a few ideas for layout with motion may be made, to illustrate the idea.

1. If the personality strip is not used on the front page it will find a good spot here (Fig. 37). A 1-column strip of candid camera shots of people behind the news could extend from below the masthead to the bottom of the page, on the left. Editorials could be blocked into the next 3 columns, to a point a third of the way below the fold, while a cartoon 3 columns in width, with overline centered, would take the upper right-hand corner of the page. Such a page has diagonal movement from the lower left to the upper right, and this motion could be further accentuated by a couple of ½-column cuts or by a 1-column cut so placed as to emphasize this diagonal feeling. It will be further marked by a strong line of head type in 2 or 3 columns below the editorials. If the article used here carries a ½-column picture of the author, this cut should be in a diagonal line with cuts used in the editorials and with the cartoon, and it should be separated from the picture strip on the left by at least a ½ column of type matter. Any other heads on the page should help the diagonal feeling. The editorial block should be topped by a line of strong head type and should be given further appeal by being printed in wide measure and in larger type. This can be readily accomplished by dividing the 3-column space into 2 columns, with a 2-pica gutter and no column rule in the center and 2 picas of white space all around.

2. A 4-column channel can be marked off for the editorials down the center of the page from top to bottom (Fig. 38). The masthead will occupy a shallow 2-column space on the left of this and letters from readers (or some other feature) a 2-column space on the upper right. A boldface 2-line head (say in 36 point) will top the editorial space, calling attention to the lead editorial,

The King and the People

The Archbishop of Canterbury issued the following statement last night:

"At this moment of deep anxiety and bewilderment in the public mind I venture to express two earnest hopes.

"The first is that during this critical week-end and especially on Sunday those who have a duty to speak to the people from the pulpit or otherwise will refrain from speaking directly on the matters which have arisen affecting the King himself and his subjects.

"Words spoken with imperfect knowledge of an extremely difficult and delicate situation can give no helpful guidance and may only mislead or confuse public thought and feeling. Silence is fitting until the ultimate decisions are made known.

"Secondly I hope, and indeed I take it for granted, that on Sunday prayers will be offered in all our churches, as surely they must be continually offered in the hearts of all Christian people, that God may in these momentous hours overrule the decisions of the King and of his Government for the lasting good of the Realm and Empire."

Daily Express

WORLD'S LARGEST DAILY NET SALE

Opinion

Mr. Baldwin Says

MR. BALDWIN speaks plain words.

He tells the House of Commons that there is no such thing as a morganatic marriage known to English law.

He is right. If the King marries Mrs. Simpson she becomes Queen of England. Mr. Baldwin is against that. And he says that he is against amending the law to make it possible for her to become Princess Consort.

Now we will speak plain words.

The Way Out

BY this blind stalemate Mr. Baldwin and his Government are making a direct challenge to the King. The result is that if there was a crisis yesterday there is a worse one today.

There is no need for it. This grave issue has not been forced upon us by outside events beyond our own control.

It is a man-made crisis, and made here at Hall. But as men have made it they are capable of ending it. This thing can be brought to a close whenever Mr. Baldwin and his Government desire—by withdrawing their opposition to the King's intention of marrying.

* * *

After Divorce

FOR Mr. Baldwin and the Government do not reflect the true feelings of the British people if they base their opposition to the marriage—as their Press supporters do—on the grounds that Mrs. Simpson has divorced her husband.

There is no law in England that forbids remarriage though the Church has encouraged its bishops and parsons to refuse to marry divorced persons.

Even within the Church there is a strong party who want to end this situation.

* * *

If The King Goes

THE desire of certain persons for divorce is fully understood and respected and understood.

But has it got to be gratified by the entire Empire giving up a splendid and hard-working King? For the King is being asked to pay the price of abdication for his desire to lead a happier married life.

We have to ask, "What would be the price, for his people, of the King's abdication?"

* * *

But The King Must Stay!

FOR a lifetime this King has been trained in knowledge of the countries under the Flag. There is no citizen in any part of the Empire who knows it at first hand as he does. Are we going to cast that magnificent equipment away with all the years of service that he has given? There's none in high places who better understands the ideals and sentiment of youth in this country, or the experience of his own generation.

We cannot afford to lose the King. We cannot let him give up the Throne.

For Xmas and the New Year
CHELTENHAM SPA
The Ideal Winter Health Resort
CONCERTS, DANCES
THEATRES, GOLF, HUNTING, SKATING, CURLING, BADMINTON, ETC.
Send for Full Xmas and New Year Programme, or Dept. F, Information Bureau
TOURIST, 1st CLASS RETURN FARES

PORTRAIT OF THE HEAD of the CHURCH

Cosmo Gordon LANG
St. Augustine's 99th successor

IN his own phrase, the Archbishop of Canterbury—key figure in current crisis—is "the chief spokesman of God to his fellow countrymen."

It is a high calling.

The present Sovereign is the first to Cosmo Gordon Lang—one life with seven his predecessors have not been ministered. Probably they were I except, as Queen Victoria and King George.

In the 90s he was vicar of Portsea. Victoria brought him "to command" soon for him to preach at Osborne. Afterwards he received across the water to present to her hand-bells given privately with special fort at Cant

In 1901 he became Bishop of Stepney.

BUT he was more prominent in 1910 as private to Rose George when Prince of Wales, for hasting attending a Roman Catholic service on a special occasion. He had a precedent for such an act, for, as it would be necessary to go back to discover it.

"A very good precedent, too," assured the Prince.

He found great friendship with Lang, and particularly that the consequent of to the K and his family, and he stood

He stood up even to Queen Victoria when I of a ceremony and for declining to the practice laws of public rites. At Petre, the Queen's mother earlier under him. Rank were of them, was the Queen, and not invited.

His reason for not getting married, he explained, was perfectly plain. He had a wife and has not a wife.

All the same, a wife may want the throne.

We know of no Archbishop who has not blundered in some

HIS career has been remarkably peaceful. He is a

He worked hard in the Lords during the years of crisis, and in a speech in the House of Lords in 1926 he declared that every year he read a Bible through.

In 1928 he was a Lambeth Conference. In 1929 he was a Hunting. He retired the age of down. In the same year he was appointed Archbishop of York.

DR. LANG is never "down for long." He is the possessor of a seventeen arm. His children were an exceptionally gifted family.

He was born on a cold autumn night. He must have looked a wizzled infant for the first person to see him was a midwife—his mother having when he was born, and Well, I hope the Lord will take him soon."

His health was fine, and he has been remarkably good. His only trouble is slight rheumatism.

His youth was full and brilliant. He did well academically at Oxford, and was a member of the Decemvirs, a select society of undergraduates. He was president of the Union, and was also president of the Oxford Dramatic Society.

He was a good actor in the Oxford Dramatic Society's productions, and was the only undergraduate who ever played Shylock in Merchant of Venice.

He was also president of the Oxford Canning Club, and was a member of the Bullingdon Club, the most exclusive club in Oxford.

He took a First in Classical Moderations and Literae Humaniores, and was elected Fellow of Lincoln College.

He has Scottish ancestors, but his mother's maiden name was Cosmo. It was born to her, and the Archbishop of Canterbury is the only one of the thirteenth

"GOSSIPERS and "tattlers" are liable to be fined £5 or imprisoned for a month under a new law which has just been passed by the Legislature of Tasmania.

He likes an occasional glass of beer, a bottle of wine, and a whisky and soda. He is a non-smoker.

He is a keen golfer, and plays at York every week-end. He is a member of the Royal and Ancient Club, St. Andrews.

He has had little time for social activities, but he is a member of the Garrick Club.

He is not intellectually aloof. He is one of the few who read every single leader in the Times.

He was a devoted father. Four of his children are married. Another died in infancy. Two sons are in the Army, and one is in the Navy.

TO judge one of the most difficult tasks in the world. Archbishop Lang has never attempted to do so. He has left that to others.

He has always been a great believer in the right of freedom of discussion. He has never tried to stop any book or any preacher if he thought that by doing so he would give it publicity. He has always held that the only antidote to error is truth.

He has always been a great believer in the right of freedom of discussion. He has never tried to stop any book or any preacher if he thought that by doing so he would give it publicity. He has always held that the only antidote to error is truth.

T. D.

ADVERTISER'S ANNOUNCEMENT

LETTERS

[illegible]

Hens

[illegible]

Lunacy

[illegible]

Divinity

[illegible]

By the Way, by Beachcomber

THE Society of Worthing Tomato-Growers has suggested that the Crystal Palace should be rebuilt at once in its original form and used as a huge greenhouse for growing tomatoes.

* * *

A Way Out

[illegible]

* * *

In The Rue St. Honoré

[illegible]

* * *

Measures Of Defence

[illegible]

* * *

More Shakespeare

[illegible]

What's behind all his energy
SPRATT'S Balanced FEEDING BRAN
SPRATT'S WELTMEET & MIXED OWALS
The BALANCED Feeding Meal
FREE! [illegible]

FIG. 34.—British editorial pages are livelier than our own. Here, the London *Daily Express* used a boxed editorial and a photo of the Archbishop of Canterbury, in a layout with strong graphic appeal.

which will be set in 12 or 14 point boldface, well leaded, across the whole 4-column space. Immediately below this lead editorial the cartoon will be placed, a little less than 4 columns in width, so that it may have 2 picas of white space all around it. Below the cartoon, the editorials will be continued in 2-column measure, with fair-sized heads, to the bottom of the page. Below the masthead a 2-column news picture will be used, creating diagonal feeling with the cartoon (one or two shallow 2-column reductions of horizontal newsphotos will also do in this position). In the lower right-hand corner of the page a 2-column secondary cartoon or a 2-column newsphoto completes the diagonal. An arrangement of ½-column cuts on the page further emphasizes the diagonal feeling.

3. A page with vertical or symmetric balance, yet with strong poster value, uses a 4-column cartoon in the center of the page at the top, with an overline in strong head type (Fig. 39). On the left of it the masthead is set in 2 columns, shallow. Below the masthead is a strong 2-line head on the lead editorial, which is set in double-column measure 10 or 12 point boldface type leaded, to a point 1½ to 2 in. below the fold, where it is squared off. Editorials are continued in 2-column measure below the cartoon, and squared off in the 4-column space running longer than the lead editorial but leaving room for a 2-column secondary cartoon or a newsphoto in the center of the page at the bottom. On the right of the page at the top, letters or some other feature occupy the 2-column space (but in 1-column measure), and are squared off on a line with the lead editorial. In the arm thus created on each side of the page a 1-column newsphoto is placed. Heads and columns or features are dummied into the remaining spots.

4. A 7-column editorial page (Fig. 40) might be laid out with three 1-column personality shots on the left below the masthead, a 3-column cartoon in the fourth, fifth, and sixth columns at the top, with centered overline, and a lead editorial in the second and third columns under a boldface head set 2-column measure, 12-point boldface. The remaining editorials are blocked off in 4 columns divided into 3 below, so that the cartoon seems to be mortised into the whole block of editorials. A 2-column newsphoto in columns three and four just below the editorials and a 2-column cartoon in the lower right-hand corner complete

LONDON THEATRES
Daily Herald
WORLD RECORD—unbroken
OVER 2,000,000
Every Morning
TELL THE PEOPLE
If the KING Were to MARRY—
"THERE is no such thing as a morganatic marriage known to our law."
by C. G. MORAN
Waiting for news outside Buckingham Palace yesterday.
The Ex-K-G
—And If He Were to ABDICATE
by Harold Laski
ROUND ABOUT by The Playboy
DEFEAT WINTER ILLS WITH SEAGERS EGG FLIP
The Bracer that Builds you up!
ONLY 5/6
PER FULL-SIZE BOTTLE
JUMP OUT OF BED
MORE FELLOW MEN

FIG. 35.—Newsphotos and variety of typography help the asymmetric layout of this editorial page from the London *Daily Herald*. Note that these English editorial pages carry ads, amusement notices, and a column of short editorials as well as the featured ones.

the spotting of the page for balance with motion. The rest of the space on the page can be used for letters, feature columns, and other suitable matter.

As we stated in the discussion of front-page makeup, any modernizing of editorial pages must also take into account a middle ground for reader clientele which is apt to resent overdisplay. The editorial page represents the intellectual personality of the newspaper. It should be as virile and approachable as are the best personalities of highly educated persons, but no attempt to avoid stodgy pedantry should result in an appearance which certain types of reader will mistake for demagoguery or lack of reasonable restraint. A well-informed man or woman possesses poise, even though dynamic, thoroughly practical, and moved by conviction.

If a newspaper is large enough to devote an entire page to editorial comment and the work of signed columnists with a cartoon, attractive balance which considers the whole page as a unit can be worked out in various ways. Many smaller papers, however, require that not more than half the page be allotted to comment and masthead; the rest must contain early-set news and perhaps one or two advertisements. One or two news pictures can effectively brighten an editorial page through strategic placing among its news columns.

In case pictures are used, it is well to select those which have editorial implication, preferably those which refer directly to editorials on the page. Almost any adequate mat or picture service or local photography staff makes this possible. The caption, by calling attention to the editorial involved, increases interest in both the picture and the editorial and ties the news and editorial portions of the page together. For instance, a picture of Goebbels being toasted in beer by his comrades during the Nazi Jewish persecution should have a caption which refers by title to an editorial, not necessarily on the content of the picture, but on the Jewish persecutions, or on Goebbels' activities, etc.

A newspaper which devotes half its page to editorial comment, letters from the people, and reprinted editorial matter, may use this general principle of makeup:

Masthead in the customary place in the upper left-hand corner of the page; 3 17-em columns with type indented ½ em on each

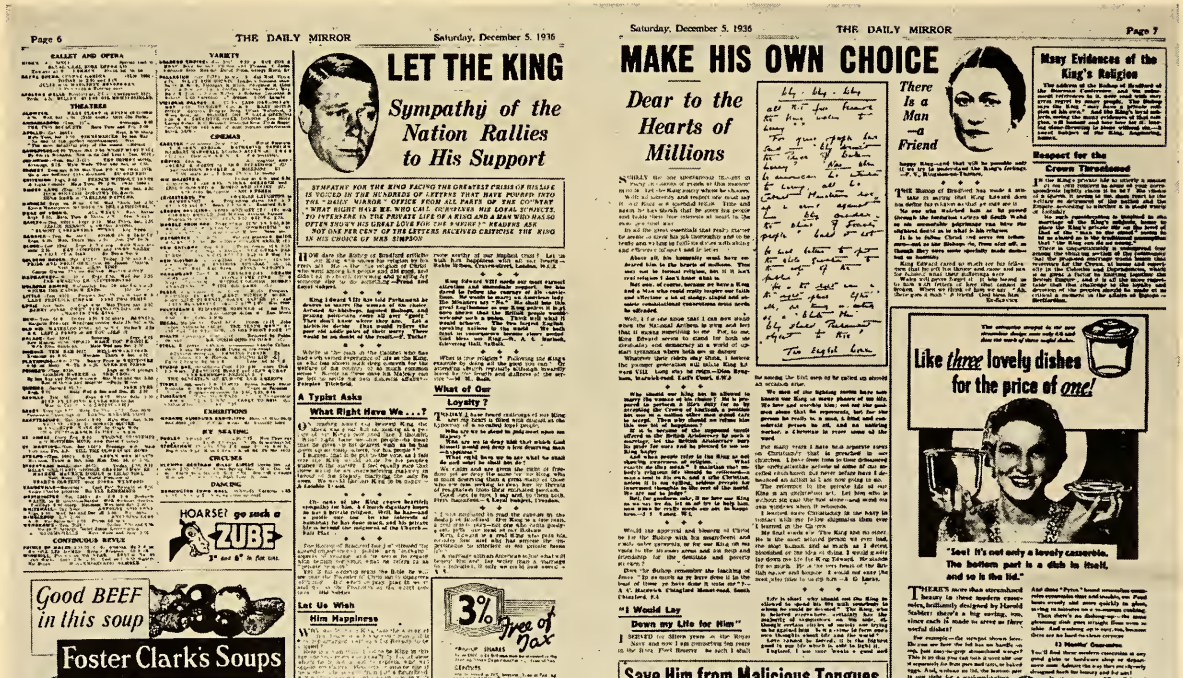

Page 6
THE DAILY MIRROR
Saturday, December 5, 1936
LET THE KING
Sympathy of the Nation Rallies to His Support
SYMPATHY FOR THE KING FACING THE GREATEST CRISIS OF HIS LIFE IS VOICED IN THE HUNDREDS OF LETTERS THAT HAVE POURED INTO THE "DAILY MIRROR" OFFICE FROM ALL PARTS OF THE COUNTRY. WHAT HIGHER PRAISE HAS BEEN GIVEN TO ANY PUBLIC FIGURE, TO INTERVENERS IN THE PRIVATE LIFE OF A KING AND A MAN WHO HAS OFTEN ENDURED HIS GREAT LOSS FOR THE NATION'S SAKE? HERE ARE NOT ONE PER CENT OF THE LETTERS RECEIVED CRITICISE THE KING IN HIS CHOICE OF MRS. SIMPSON
A Typist Asks
What Right Have We . . . ?
What of Our Loyalty?
Let Us Wish Him Happiness
"I Would Lay Down my Life for Him"
HOARSE? go suck a ZUBE
3d and 6d in flat tins.
Good BEEF in this soup
Foster Clark's Soups
2/- SQUARE. MAKES 5 PLATES
3% Free of Tax
HALIFAX
Saturday, December 5, 1936
THE DAILY MIRROR
Page 7
MAKE HIS OWN CHOICE
Dear to the Hearts of Millions
There Is a Man —a Friend
Many Evidences of the King's Religion
Respect for the Crown Threatened
Like three lovely dishes for the price of one!
"See! It's not only a lovely casserole. The bottom part is a dish in itself, and so is the lid."
And these "Pyrex" heated ovenware casserole companions that add sunshine, new Food Value, variety and charm quickly to plain, or fine, or luxurious or economic cooking.
Then there's no doubting the wisdom of giving such gifts straight from oven to table. And cooking at very low, economic heat saves the heat-to-heat expense
"PYREX" Streamline casserole
THE FIRST—THE BEST—TESTED AND PROVED IN A MILLION OVENS
Save Him from Malicious Tongues

FIG. 36.—A London tabloid, the *Daily Mirror*, illustrates how facing editorial pages can be handled as an ensemble. The banner line reading across the fold is apt to get out of alignment, as here, and is not recommended. But the page has graphic interest, and the ads, in three groups, get attention.

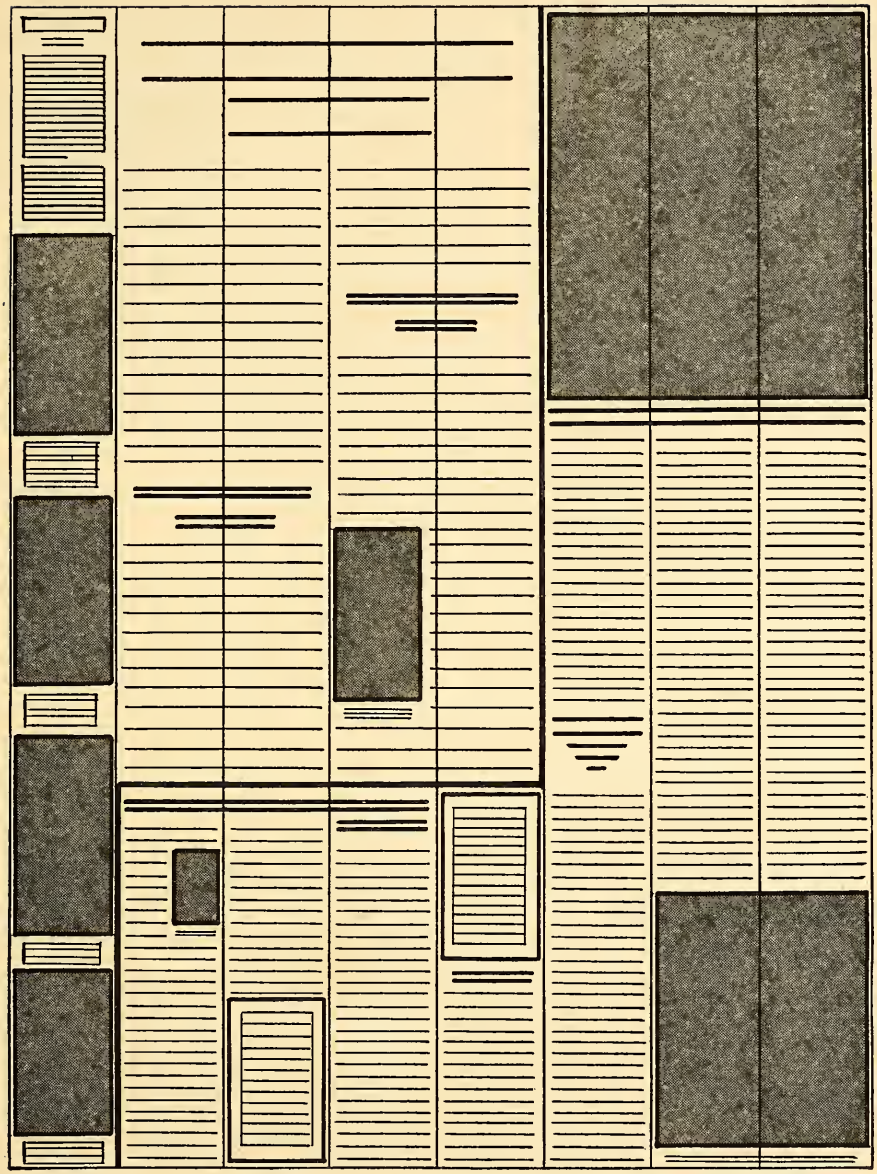
side, each editorial begun with a large initial letter which extends down 2 lines, body type set in 7 point on a 10-point slug; 3- or 4-line "pointed paragraphs" to insert between editorials or at the bottom of columns to break the columns up and assist in filling short gaps, since the broader measure cannot be run over elsewhere on the page; a 3- or 4-column cartoon.

Personal interview tests have revealed that the majority of readers look more often at the top of columns two and three than at column one. This probably is because the masthead kills the top of the left-hand column and because the eye normally moves right of the extreme left of any area or object, unless artificially pulled to the left by pictures or a large head. Therefore, if a single-column makeup is used, the two leading editorials may effectively be placed at the tops of columns two and three. Either the first column below the masthead can then be devoted to letters from the people, which have considerable departmentalized and feature interest; or the left-hand column can be devoted to several short editorials with a distinctly human-interest tone.

Whenever editorials are long, they may be squared off under 2-column heads and divided by broader dashes. If they run particularly long, they may be broken up by asterisks, with the paragraph immediately following the asterisks beginning with a large initial. A few important paragraphs indented in lightface, or, if the paper has no policy against it, in boldface, will relieve long editorials.

A conservative daily newspaper in the Middle West uses 2-column heads entirely for editorials on 17-em indented slugs in columns two and three. If the editorials are not long, this paper contains two editorials, one a little longer than the other, giving the 2-column head to the longer one, with the shorter editorial under a 1-column, 14-point boldface head forming the end of the squared-off matter.

Since the lower half of an editorial page, like the lower half of any other page, has been found to rate low in reader-attention value, the lower 3 or 4 in. of the editorial columns may be devoted to candid shots of personalities of editorial significance, to maps or charts referred to in the editorials above, or to questions and answers under a 3-column boxed head. The boxed head over questions and answers may be used in this space only when



Layout by Laura Vitray; art work by S. F. Perkins.

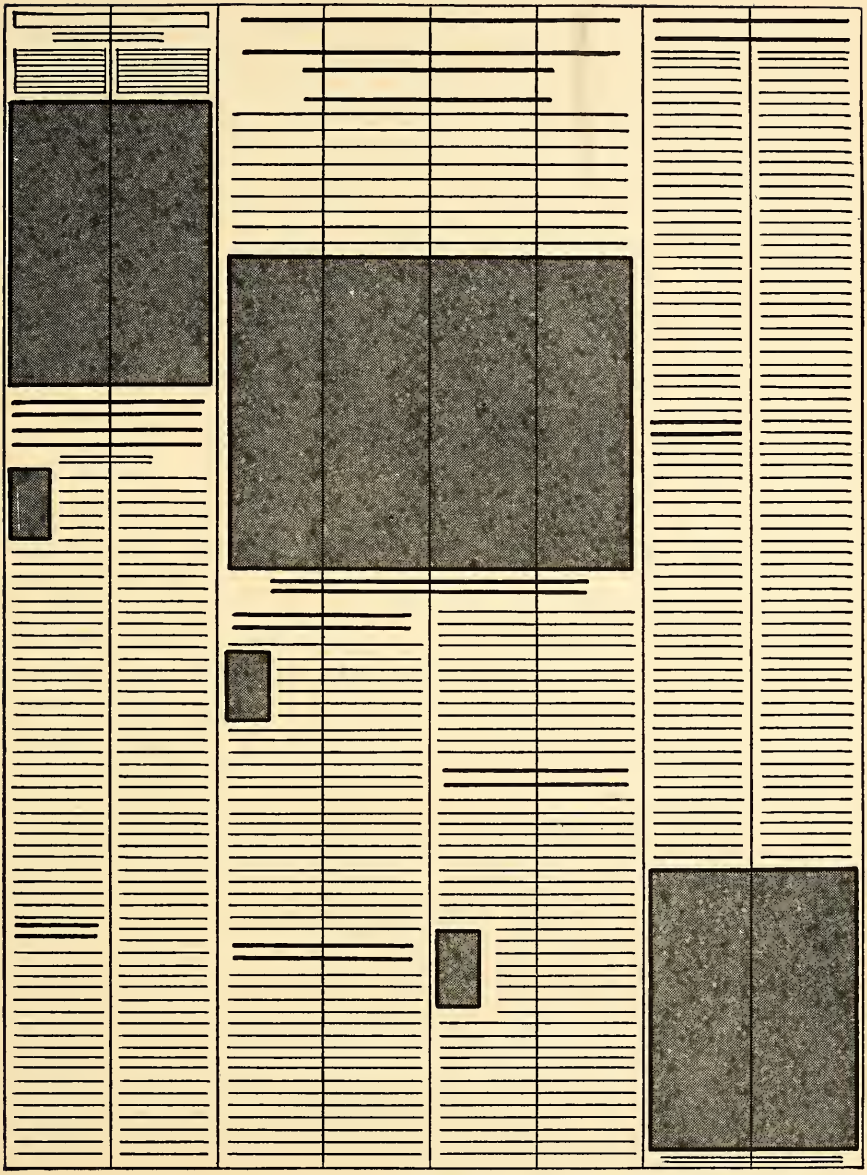
FIG. 37.—American editorial pages can retain dignity yet look less forbidding. Many of them would gain by a more "structural" layout. Here the lead editorial is in 2-column measure, with a rule accentuating the layout pattern, which is emphasized by the position of the secondary heads, halftones, and boxed type. The large illustrations are cartoons.

charts or pictures are not used. When pictures or charts *are* used, the questions and answers are used elsewhere on the page, sometimes under a reduced head.

The Columbia *Missourian,* a conservative middle-western small daily, published in a locality which has demonstrated an unusual interest in editorial comment, frequently uses either 17-em or 35½-em maps or charts slightly above the middle of an editorial referring to the map or chart. The *Missourian's* practice is to place this illustrated editorial below the leading editorial in order to increase the graphic appeal of the secondary position. Some conservative papers avoid using any other illustration than a map, chart, or boxed table on the theory that a photograph would have to be too small in an editorial column to show and would lack dignity as an illustration for a relatively short comment, the major appeal of which is intellectual.

Another effective middle-ground editorial makeup is to create a 4-column rule box extending down the middle of the editorial page to a point below the fold which leaves just room enough for a 4-column cartoon with its overline. At the top of the rule box is the masthead. Below the masthead appear editorials in two equal broad-measure columns, indented a full em on each end, set in 8-point type on a 10-point slug. Editorial heads may be in 24 point, upper and lower case, centered over squared-off long editorials, or in 14 point centered over single-column, shorter editorials. This makeup leaves two news measure columns on each side of the editorial panel. Either editorial features or signed columns under boxed heads can be used for these narrow-measure columns; or, if the paper requires straight news matter for these columns, regular news heads and at least two news pictures, directly or indirectly connected with the editorials, can be used, one on each side of the panel.

Short, boxed editorials, 50 to 100 words, may be used to attract especial attention at the bottom of each 2-column news wing in such a panel makeup. In this case, they would come at each side of the cartoon but would have less than half the depth of the cartoon. The type in them should be generously indented to give plenty of white space all around. If editorial matter, however, is placed in 17-em columns at the left-hand side of the page, a 17-em boxed brief editorial may be effectively placed as a daily feature immediately under the masthead.



Layout by Laura Vitray; art work by S. F. Perkins.

FIG. 38.—Newsphotos lend color to the editorial page, and of course should be related to its content. Here the major editorial holds the center of the page, set in larger type with a 4-column lead above the 4-column cartoon, and continued in 2-column measure below. The lower right illustration may be newsphoto or cartoon. Half-column cuts offer contrast to the larger art on the page.

Several variations will suggest themselves. Principal aims to be achieved are 2-column heads over squared-off long editorials, large initial letters, asterisk breaks, at least 16½ or 17 em measure well leaded, carefully broken makeup below the fold, pictures which refer to the editorials, and at least occasionally chart or map illustration run into the editorial matter.

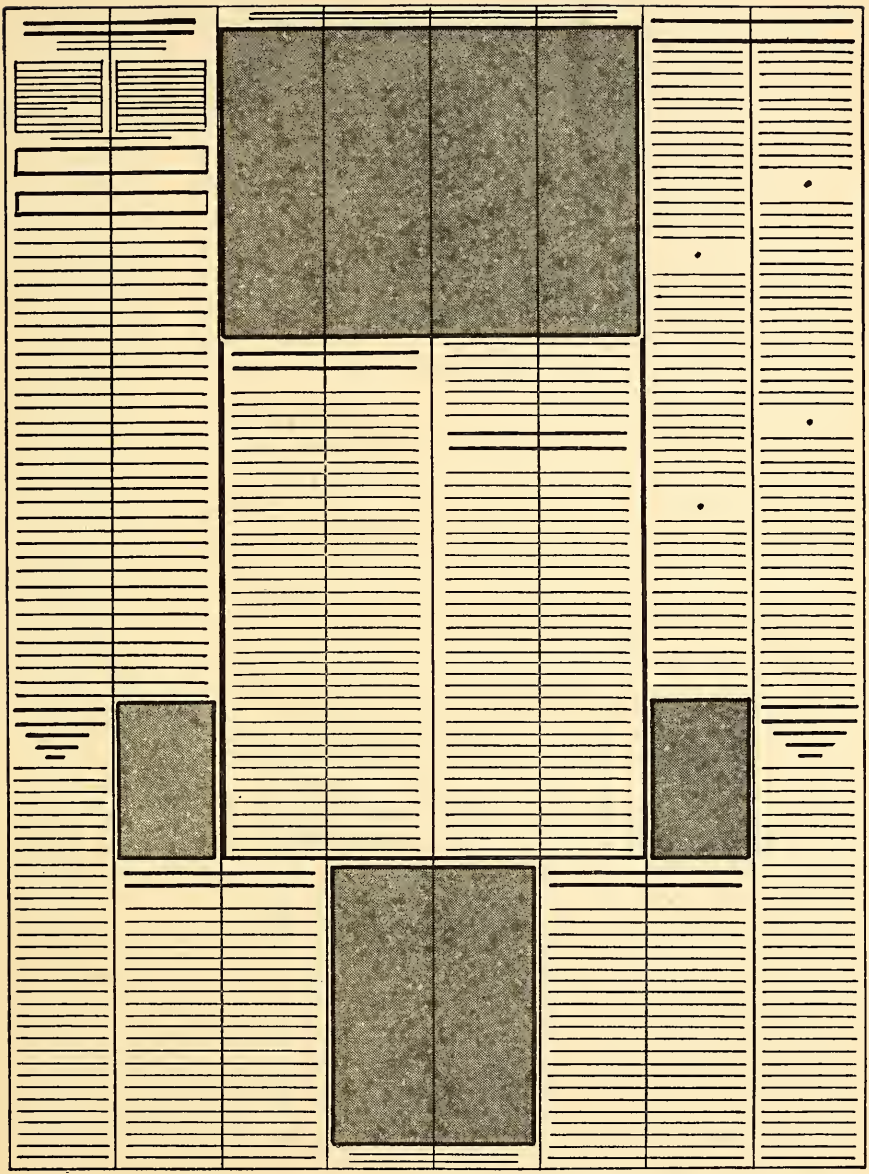
After readers have become accustomed to broad measure, 2-column heads, chart illustration, pictures, and center panel display, 10-point type for editorials may be used.

The Opp-ed Page

In laying out the editorial page, the page which faces it, often called the "Opposite Editorial Page," should also be taken into careful consideration, in order to be sure that the two, when viewed as an ensemble, work well together (Figs. 37*A*, 38*A*, 39*A*, and 40*A*). Of course this facing page is sometimes sold for a full-page ad or most of the page is sold as a preferred advertising position, in which case it must be handled as a regular inside page of the paper. On many newspapers it is reserved for editorial features, columns, and special commentary on the news, and advertising space, if any, is strictly limited. If the two pages are carefully laid out it is a good position for attention value and, it seems, should be a source of revenue to the paper. Three columns can be sold and still leave room for good display of feature material.

Like the editorial page, this page need not be allowed to be gray in effect nor amorphous in pattern. Photos or cartoons can be used to give it layout with motion. A column of editorial comment can be set in double-column measure. The things to remember in dummying this page are: (1) Photographs and cartoons should be kept away from the advertising; (2) the elements that come together on the fold should show variety; that is, if single-column measure is used on one side of the fold, double-column on the other side offers contrast; type offers contrast with pictures, photo with cartoon, etc. Watch the fold to see that it offers this necessary contrast of material, shapes, and tone values (see Figs. 37*A*, 38*A*, and 39*A*).

An Opp-ed Picture Page. When no advertising is sold on the opposite editorial page, it is possible to turn this into a picture page and still leave room for a column of editorial comment



Layout by Laura Vitray; art work by S. F. Perkins.

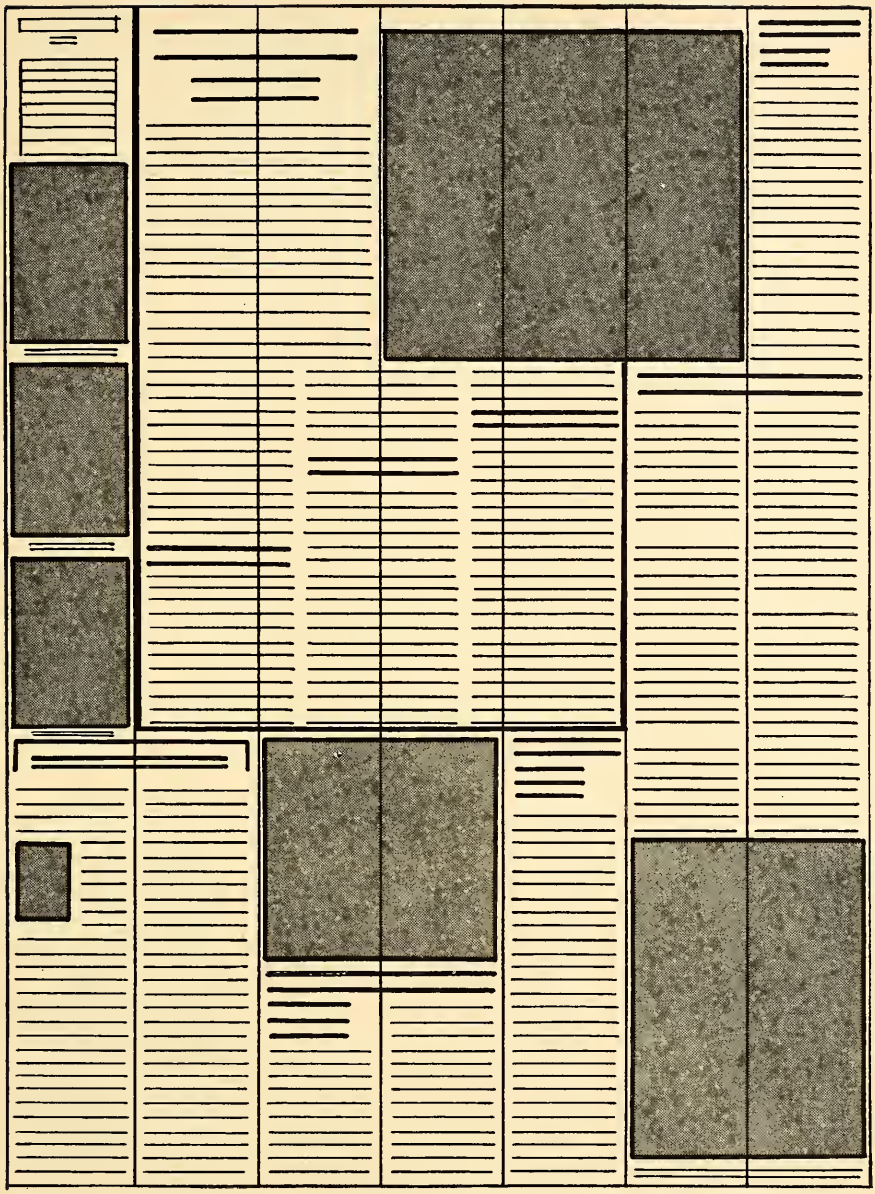
FIG. 39.—Symmetric layout gives dignity to the editorial page. Here the chief editorial is in 2-column measure, below a 4-column cartoon, and is set off in a rule box from the rest of the page. An important editorial would also be carried in the first two columns, under the masthead. Letters to the editor occupy columns 7 and 8 at the top. The two 1-column cuts are halftones, and the 2-column cut at the bottom is a secondary cartoon.

and an editorial feature (see Fig. 40*A*). This may take the place of the daily picture page or be supplementary to it.

Tabloid Editorial and Opp-ed Pages

Tabloid editorial and opposite editorial pages are of course simpler in design. The New York *Daily News* often gets good effect with a right-hand editorial page faced by a left-hand page of news pictures. The editorials are set in 10 point in 2-column measure on the left of the page, next to the fold. The center column on the page is a feature called "The Inquiring Photographer," sprinkled with five or six ½-column silhouetted faces of persons interviewed for their opinions on matters of interest. The upper right-hand corner of the page carries a 2-column cartoon, and below are letters to the editor. The editorials are broken by heads and indented for 2-line flush-left subheads in 14-point boldface italics, giving a good impression of variety. The picture page carries a boxed picture feature, "The Correct Thing." On the whole, the treatment of the two pages is simple and dignified, yet illustrates what newsphotos will do for editorial display.

The Washington *News* (Scripps-Howard) uses editorials on the left-hand page, in two double columns of 10 point on a 12-point slug, with centered 14-point italic cap heads in boldface. A 3-column cartoon is set in the upper right corner on the fold and a feature called "Ask the News" fills out the fifth column. Column rules have been dropped on this page and the page facing, which is devoted to several special columns, a cartoon, letters, and editorial features. It uses sans-serif type in flush-left heads and is spotted by several ½-column cuts. Despite these modern innovations, the effect of the two pages is scattered and lacking in strong graphic appeal. The layout lacks the structural qualities which would make it forceful. In Fig. 41 a design is shown for placing this same material, omitting the column rules but using a heavy rule to emphasize structure, in a layout which has motion. Bold display of the editorials can be obtained by placing them on both pages, using strong head type and wide measure leads in 12-point boldface across 4 columns, leaded. A layout of this sort is shown in the illustrations, with newsphotos and cartoons tying the 2-page spread into a single layout (Fig. 42).



Layout by Laura Vitray; art work by S. F. Perkins.

FIG. 40.—Dramatizing the editorials by effective layout guarantees them a better reading. Here the major editorial starts with a 2-column lead, below which it is set 15 picas wide, blocked off in three columns that fill out a 4-column space. A rule sets this editorial off from the others, while the cartoon at the top appears as if mortised into it. Other art on the page accentuates the asymmetric plan.

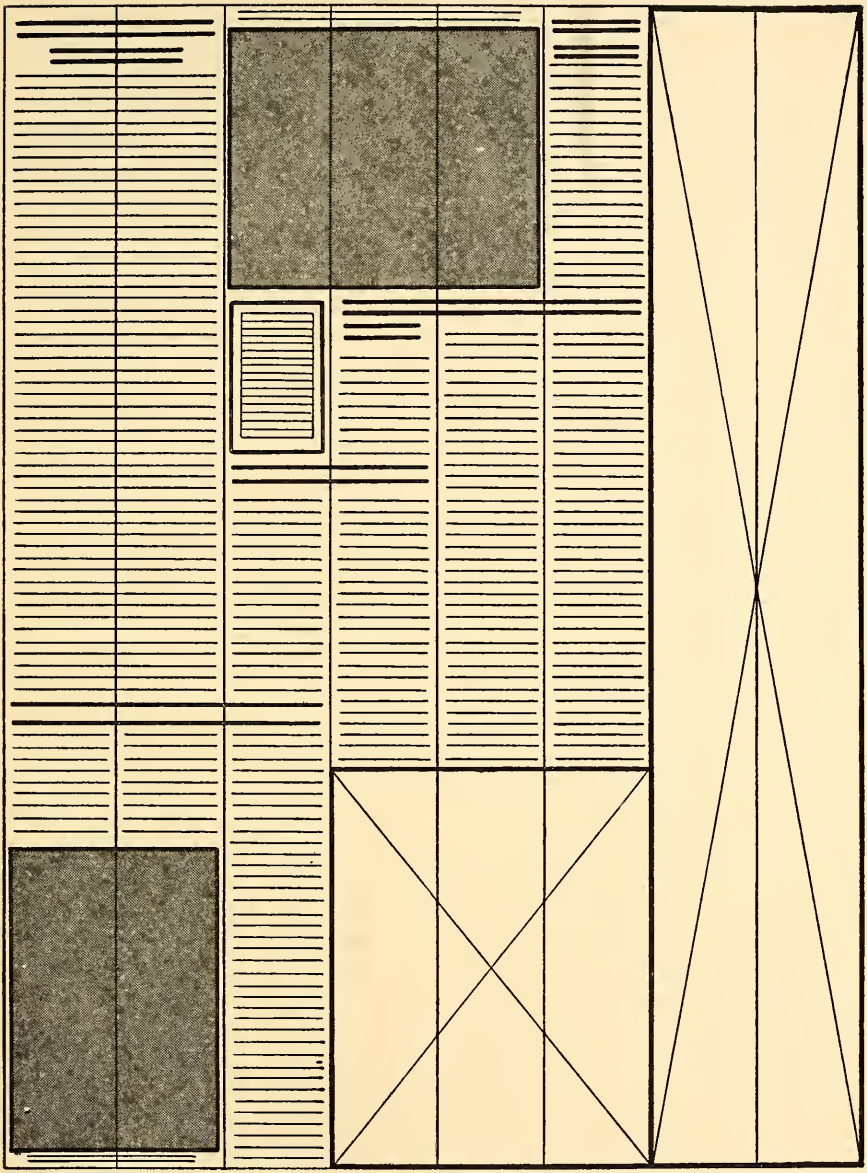
Any student or newspaper man dummying pages can work out a host of alternative layouts, combining the elements of the page to obtain graphic display. If uninteresting pages so often appear, it seems to be because the makeup editor only modifies details—improving typography, dropping column rules, etc.—but never half closes his eyes and momentarily views the page ensemble, not as type to be read, but as visual tone values to be effectively distributed.

A Daily Split Page

When a daily paper is printed in two sections, the first page of the second section, or "split page," has display potentialities secondary only to the front page. Many newspapers take advantage of this by giving the page very special treatment. Often it carries no advertising and usually it carries the newspaper nameplate, somewhat smaller than on Page One. Some papers use it as a local news page, others as a daily feature page, still others as a sports page. When the newspaper press has a third or "balloon" folder and so can turn the paper out in three sections, sports usually take the front page of the third and either local news or features the front page of the second section. There is something to be said for and against any one of these arrangements. Let us look them over critically.

Split Page of Local News. If the front page of the newspaper is handled as a cover page, playing only one or two of the biggest stories of the day from far and wide, and using bulletins, blurbs, and pictures to suggest to the reader that there is *more big news inside*, then the split page becomes an excellent spot for local news stories, features, and photographs. If, however, the principle of placing all big news on the front page is strictly adhered to, then *important* local stories will make the front page, only secondary ones the local page. Over a period of time the reader is apt to get the notion that this local page does not contain really important news. It loses its value for him.

The Feature Split Page. There is undoubted appeal in a split page such as the *World-Telegram* uses, containing one big feature story with illustration (part of a feature series carrying over from day to day) and a group of special columns. Yet the average newspaper would consider itself overburdened with columns and features if it had to devote this space to them in addition to an



Layout by Laura Vitray; art work by S. F. Perkins.

FIG. 37*A*.—The opposite editorial page is regarded as a choice position by advertisers. The layout should create an ensemble with the editorial page. This page was designed to work with the one shown in Fig. 37.

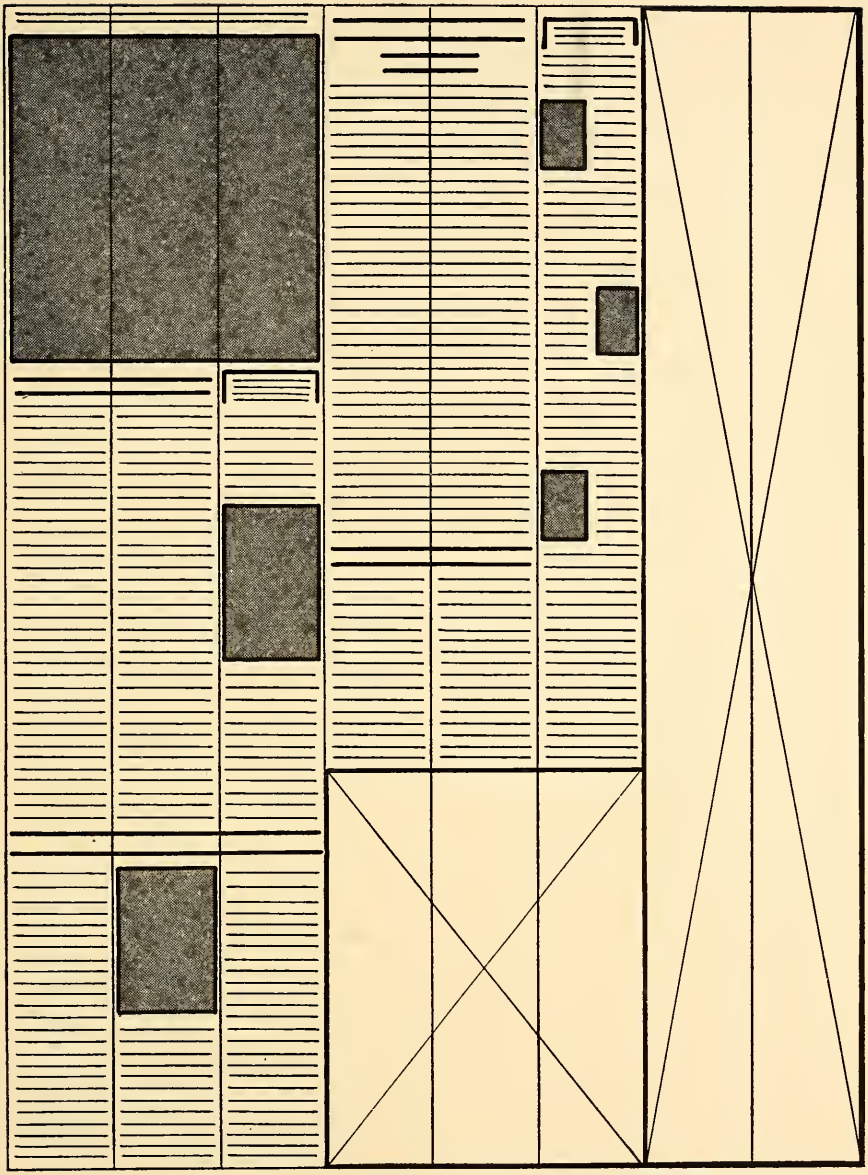
opposite editorial page. Of course if the columnists, or most of them, are placed here, the Opp-ed page could be made a picture page, as suggested above, possibly with the inclusion of one or more short articles of news comment. Such an arrangement might prove very desirable and economical.

Sports on the Split Page. Sports news has high reader interest and sports pictures often have high dramatic values which can greatly enhance split-page appeal, yet such a page will not have the pulling power for women it has for men. When there are three sections, there is no doubt about sports taking the front page of one. If there are only two, but the paper has several editions, it seems there might be a shift to give sports the front page of the second section on one edition. Usually, even when sports begin on an inside page, this page carries the newspaper nameplate, so that the shift to front of the second section would involve no composing-room difficulties. Certainly sports are not a particularly happy choice for this page in an edition intended for home delivery, whether of a morning or of an afternoon newspaper, for, it has been shown, women constitute a large proportion of all newspaper readers and the home edition is addressed especially to them.

Cover Value of Split Page. No matter what material is used on the split page, its value as a *cover page* should not be ignored. Just as the front page of the paper should be handled in such a way as to entice the reader into the inside, so this page, which the reader often turns to before he has read any inside pages—by merely shuffling the two sections—must be given a treatment which helps to get the *whole paper read.* One good way to do this is to headline and blurb big inside stories and features on the newspaper's front page, but *place the index* to the whole paper, well displayed, on the split page, thus referring the reader backward and forward from this page to those containing advertising.

Whether or not advertising is sold on the split page, newspictures should help to give it bold display. Here is a good place, if local stories are used, for a layout of local *action pictures,* not just stodgy bust photographs or 1-column heads of local businessmen, but animated pictures from the local scene.

A Circulation Builder. The top of the page might profitably carry a local feature story with carry-over qualities, consisting of an interview each day with some interesting local business-



Layout by Laura Vitray; art work by S. F. Perkins.

FIG. 38A.—An Opp-ed page arranged to make an attractive spread with the page shown in Fig. 38. This placing of ½-column cuts is often good beside an ad. With type indented for only one ½-column cut, three may be inserted by placing one of them immediately below the other on the left of the column and the third on the right, centered on the first two. Such triangular groups of ½-column cuts may be used in series.

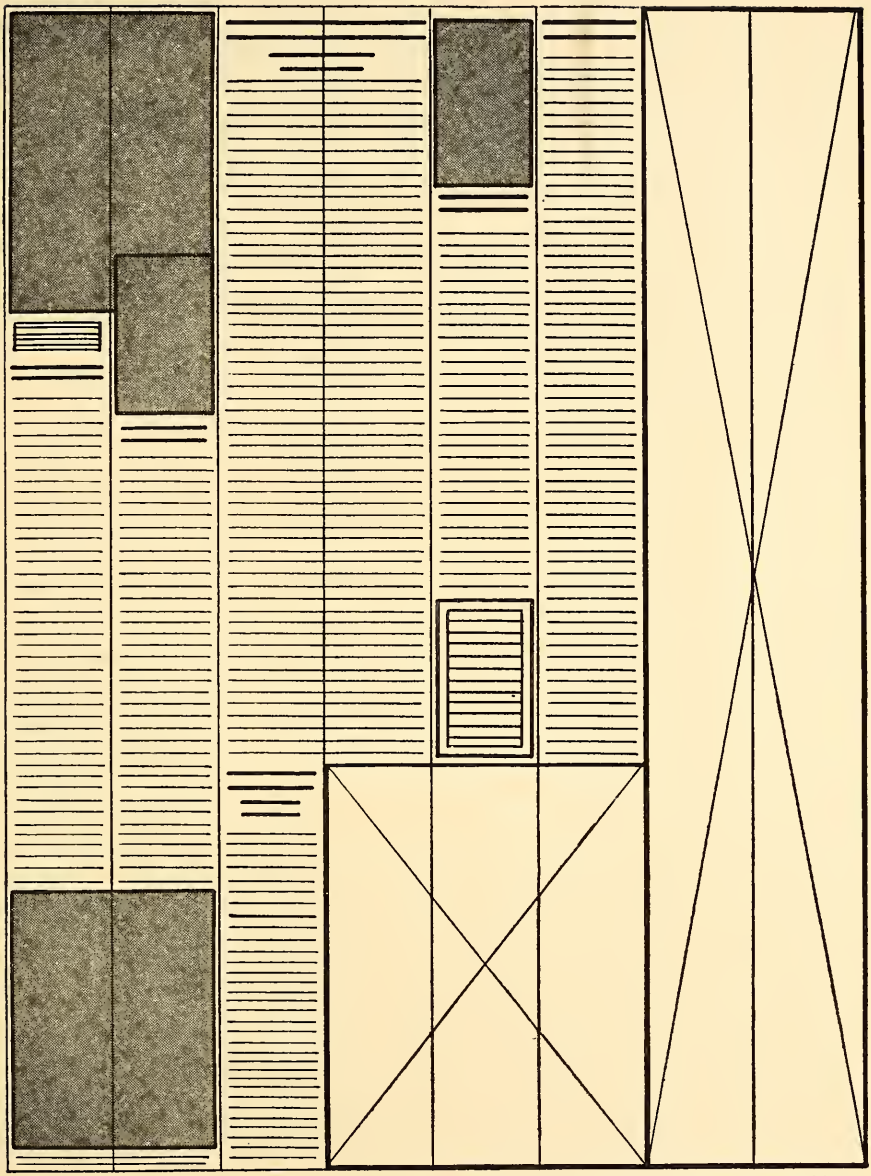
man, educator, housewife, boy or girl with a hobby, architect, traffic reform enthusiast, visiting bigwig, city official, librarian, window dresser. Any imaginative editor can think of a limitless number of such stories, and very often they can have a direct tie-up with news, certainly with long-range news. Almost any adult citizen in the community has feature possibilities. Planned in advance, such features give opportunity for a little better art work than is possible elsewhere in the paper.

A cameraman attached to the paper, or one of the local studios, if properly encouraged to do so, can get the "citizen of the day" in a candid shot, with an interesting background suggestive of his or her activities. This portrait study may be handled in a distinctive fashion: with a special halftone screen that makes it look like a painting; with dropped-out whites and a charcoal screen, giving it the appearance of an artist's charcoal drawing; with a wash line around two sides to make it appear as if mounted on a block. The daily compliment to a reader will go a long way toward creating good will, at the same time that it provides split-page variety and interest, and the story accompanying it will give new color to the local news.

The newspaper nameplate may be moved to one corner of the split page, as was suggested for front-page layout, and such a portrait study can then be given a prominent spot in the upper right-hand corner. Smaller cuts, ½ columns, 1 column, 1½ columns with ½-column cutlines, or 2 columns, will spot the page in a layout with motion, and the bottom of the page of course will be given pictorial or graphic interest too. The index, boxed or in full face, will serve as a spot in the page layout pattern and thus gain attention.

Instead of a candid portrait study, such a local page may carry a news layout when there is an event that provides pictures. Possibilities of this sort should never be overlooked, whether the subject is a carnival, the drama of a fire or a storm, a crime story, or any other subject that can be treated pictorially. The news layout should always displace the feature, if this page is the one that carries local spot news. The feature can then be moved to an inside local page, probably the second or third page in the same section.

Using Features and Columnists. Sometimes a syndicated feature is used on the split page, together with several syndicated columns. The *World-Telegram's* split page offers an interesting



Layout by Laura Vitray; art work by S. F. Perkins.

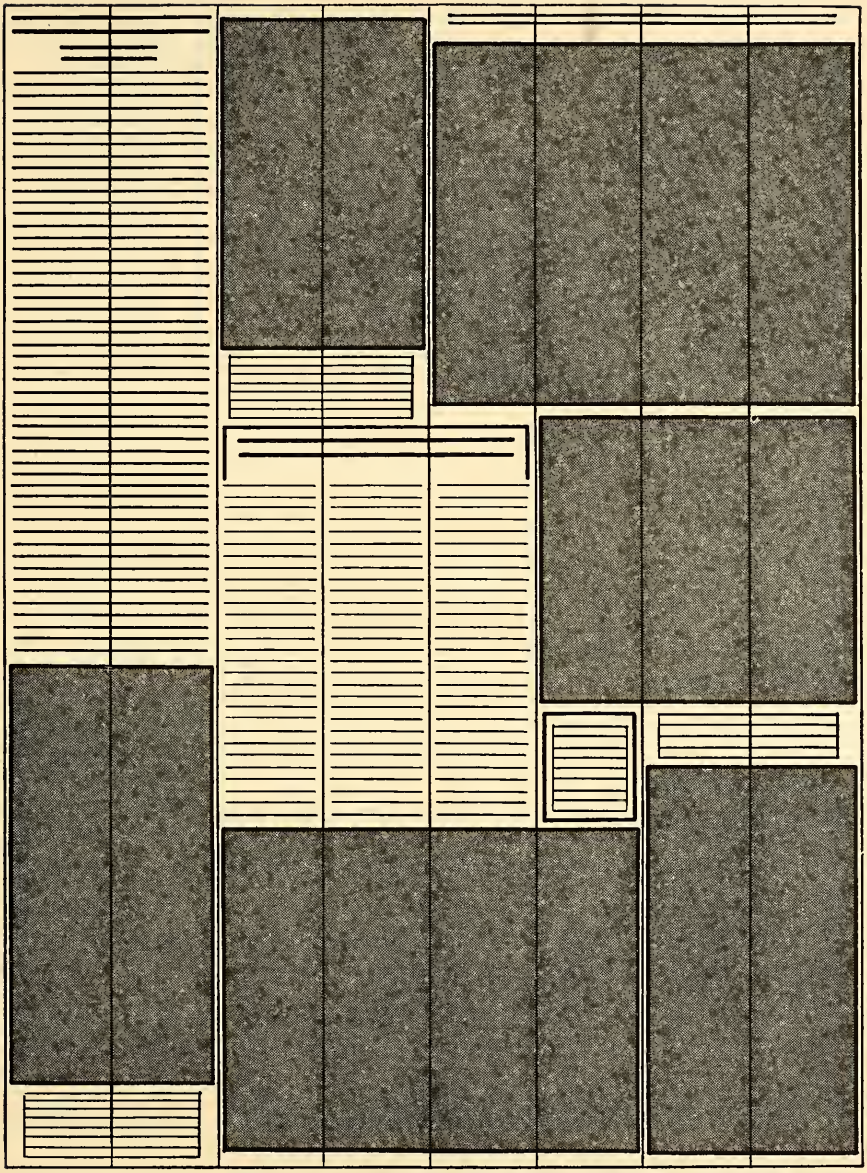
FIG. 39*A*.—The ads make it asymmetric, yet this Opp-ed page will work well with the symmetric editorial page shown in Fig. 39. Such a page might carry editorial articles or news stories, according to the needs and policy of the paper.

arrangement of such material. It has a panel of special columns down the left-hand side of the page, a feature boldly illustrated with drawings or photographs blocked into the upper right-hand part of the page to a point extending well below the fold. This feature uses the 5 right-hand columns, with a small boxed column set in at the bottom of its space and with a 5-column comic strip below it across the bottom of the page. Half-column faces of the columnists help give the page an interesting spotting. When the picture layout used with the feature is asymmetric in pattern the page takes on a very lively appearance, but when a single rectangular illustration or drawing is used, which in itself has no qualities of motion, it loses greatly in graphic appeal. That is the greatest danger of an up-and-down division of the page. It has no "swing" unless the pictures provide one. On the other hand, the row of half columns down the left side make a nice balance for a large picture layout that has motion. However, it seems that more cover value should be given the split page than the *World-Telegram* gives it. Its page is a unit complete in itself, with no suggestion that there are other pages that might be worth a glance.

Sports Page Is Lively. Hardly anything can contribute so much liveliness and action to split-page display as to use it for the front sports page. Sports pictures lend themselves to daring croppings and bold layout patterns, and these, if properly handled, present no difficulties of makeup in the composing room.

Many a sports picture of a star player in action can be blown up to a depth running well below the fold, in 2-column measure, with an arm outstretched across the page at the top, or in some such energetic cropping. A football player kicking the ball may be similarly blown up large, entirely silhouetted, and dummied into the page with columns squared off around it, leaving a certain amount of "air" or background. A silhouette used in this fashion dramatizes action powerfully. A page spotted with such a giant action shot does not need, or want, any other art. The figure is run as deep as possible, and bottom-of-the-page interest is obtained by head type strong enough to provide a base for the layout. When the picture is not silhouetted, dropped-out whites will give it startling effectiveness.

The sports events may be of a nature which provides action pictures but nothing such as just described. An interesting layout uses a "movie strip" of a horse race or some event involv-



Layout by Laura Vitray; art work by S. F. Perkins.

FIG. 40*A*.—The picture page idea may be combined with editorial comment or news stories or special columns, for an Opp-ed page with graphic appeal. This was planned to work with the page shown in Fig. 40. The picture group carries its own 4-column overline at the top, as well as ample provision for underlines.

ing progressive action, showing it at several stages. These will represent a careful selection to create the motion-picture illusion, rather than to give a long succession of shots too greatly resembling each other.

Such a strip could hold the center of the page, in 1½-column measure centered in the 2-column space on an 8-column page running above and below the fold, and with a large sports photo in the upper right-hand corner and another in the lower left hand, to create diagonal feeling. It could start in the upper right-hand corner, beside the nameplate, and be given a 2 or 3 column channel down to, or below, the fold. Smaller pictures would be used on the page to balance it.

A horizontal movie strip of a single player in action can make a broad band across the top of the page and will be more effective if unequally divided (see Chapter XIII on picture layouts). Such a strip will look well if other small cuts are placed for diagonal feeling on the page, though it may also form part of a symmetric page layout, with a tall 2-column cut centered at the bottom or the corners at the bottom spotted with 1, 1½, or 2 column cuts or blocked off with 2-column heads on stories each carrying a ½-column cut.

Of course any arrangements described here or elsewhere in this book are meant only to be suggestive. Pictures themselves dictate the layout and to the alert editor will give many opportunities for new and original treatments. The only rule to follow is to keep these bold, simple, and strong, rather than "fancy" and to see to it that they do not cause type to be set in odd measure on the page. Strict economy will often hold the picture editor down. But it seems that on the split page, which has high attention value, he should be permitted a little leeway.

A first sports page should also have some *cover* attributes. It may bulletin sports stories that are on the inside pages, carry the index to the whole newspaper, or use one or more small pictures with cutlines referring to the inside sports news. Any of the layout suggestions that have been made apply as well to art for sports pages when this department is not given a split-page position, except that of course it may not be thought advisable to spend money for too large or unusual cuts for the inside.

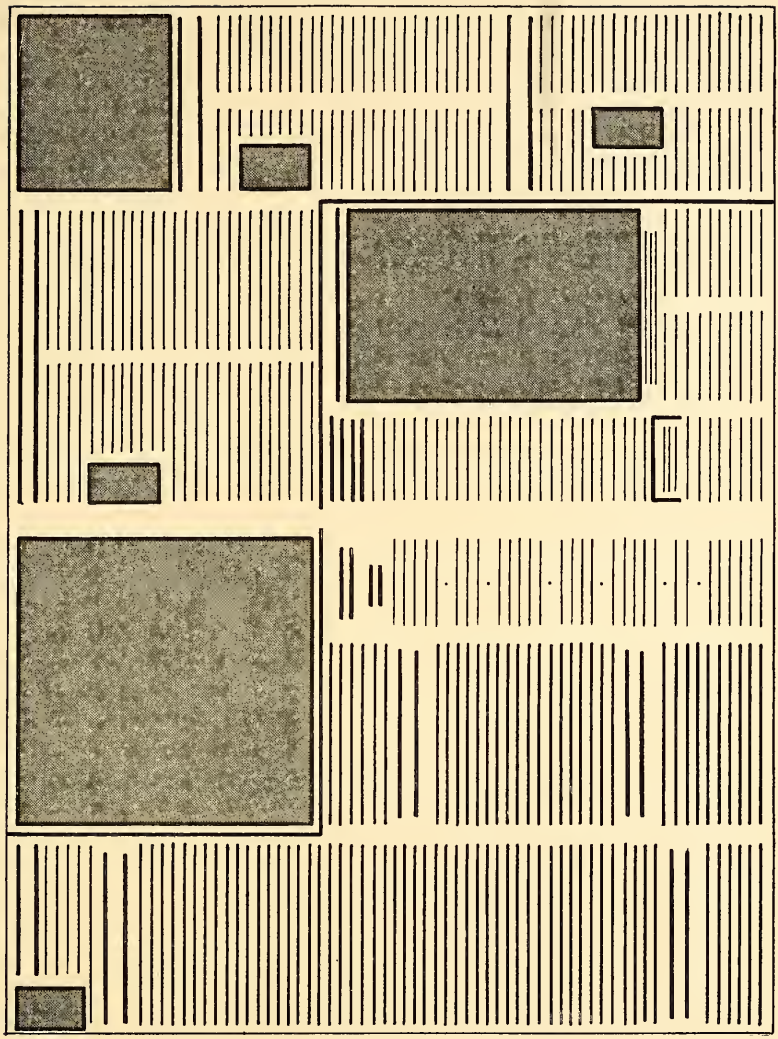


FIG. 41.
Tabloid editorial and opposite editorial pages should be treated as a unit, as in this "structural" layout using a rule for emphasis. No column rules are used on these pages. The major editorial is set in larger type in 2-column measure. The two largest pieces of art are cartoons, with a newsphoto relating to the page in the upper right, and ½-column cuts of personalities in the news, or of columnists, so placed as to carry out the structural pattern.

Layout by Laura Vitray; art work by S. F. Perkins.

Woman's Pages of the Daily

When there is a daily society page it usually carries local advertising and cannot attempt any but simple layouts. In some newspapers the woman's page and the society page face each other, and the advertising can be distributed over the two. A few papers that make a particular feature of their woman's pages, with local shopping column, merchandising service, cooking articles, and other columns and articles that back up certain classes of advertising, may have two woman's pages and a society page as well. This is true only of some of the larger newspapers.

If there is a separate society page and advertising habitually runs strong on it, it may be well to carry alternative top-of-the-page cuts on the composing-room cut bank at all times. If the 3-column cut fits better today, the 2-column will be left over and a new piece of art will be sent through in 3 columns to the engravers. This simple device will avert many a difficult jam in making up the page. Bottom-of-the-page interest should be watched as in all inside pages and ½-column and 1-column cuts will do a lot for it. Usually there is not an element of strict timeliness in society pictures, so that today's cut will still be good tomorrow, yet the greatest complaint against society-page art is that it has no time element and no action. Here the rule laid down earlier in this book, that a picture must have at least two of the three values, *personality*, *news*, and *action*, should be more strictly adhered to, for it would strike out many of the "dead pan" cabinet photographs that take up room and add no attraction to society pages. Cooperation, and even education, of local commercial photographers will do a lot toward raising the caliber of this kind of newspaper art. Maybe the women need educating, too, and it might not be a bad idea to offer prizes for the best amateur photos of society in action or for candid amateur portraits of matrons and debutantes in the community. If these are not good enough copy to be enlarged, they can be combined to make an action strip. A little newspaper initiative along this line can rapidly change the whole character of the pictures of society that flow in and can improve Sunday society pages as well as those of the daily. Here is a problem that the newspaper picture editor should work out carefully with the society editor.

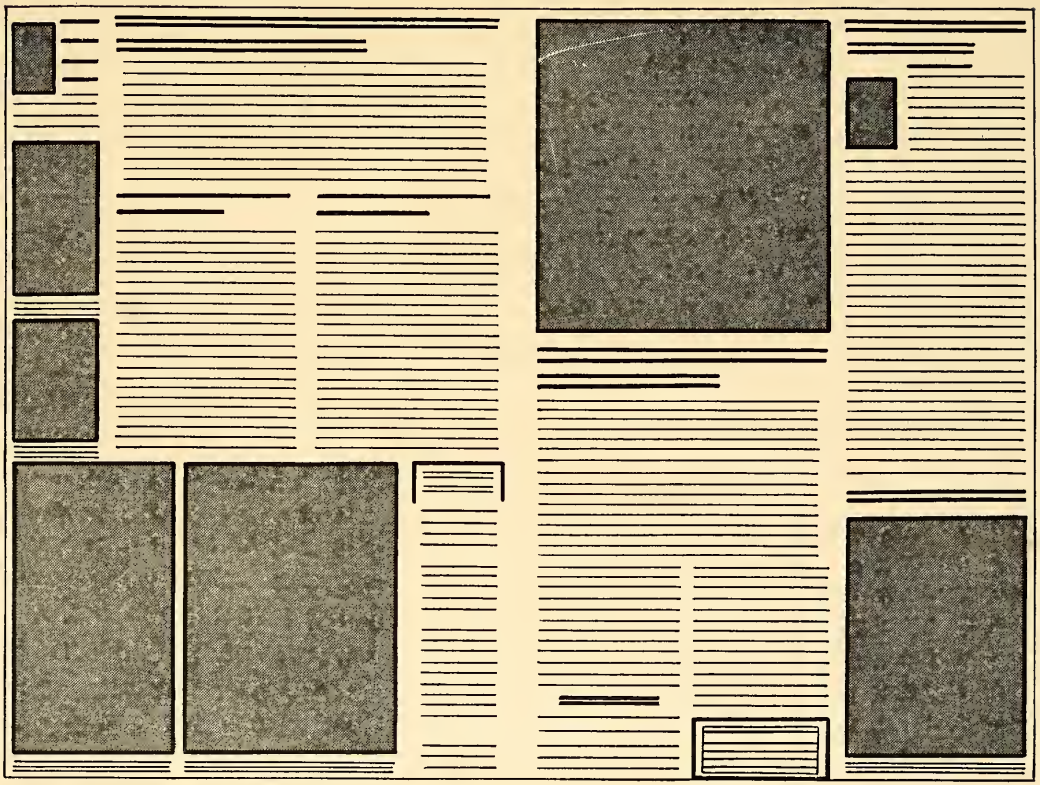


FIG. 42.
This editorial spread for a tabloid combines the editorials, columns, and cartoons with a few selected newsphotos, for a partial picture-page effect. The left-hand page carries the photos, the right-hand page the cartoons and a ½-column cut of the columnist. The major editorial takes a 4-column lead and drops into 2-column measure, while another important editorial takes a 2-column lead on the right-hand page. Column rules are not used.

Layout by Laura Vitray; art work by S. F. Perkins.

Woman's-page Art. Woman's-page art usually includes a fashion picture. Often there is also a syndicated pattern illustrated by a small line drawing; a syndicated needlework feature with an illustration; and an interior decorating feature with a picture mat. The editor of the page may write a daily column that carries a ½-column cut, and there may be a shopping column or a beauty column that carries a picture. Altogether, there is seldom any dearth of art for the woman's page, and the problem is sometimes to get it all in attractively.

The fashion illustration is very apt to take the big play on the page, for two reasons. Women are vitally interested in what is being worn; and the fashion picture, if properly used, helps get and hold advertising. A wise fashion editor is in close contact with the local stores and sees to it that the pictures used on the page have a direct relation to what the stores are showing. This has been made easier in recent years by the method of at least one news association, The Associated Press, which services fashion pictures with the names of shops in the newspaper's own community where the dresses, hats, shoes, gloves, accessories, or whatever it may be that is shown will be on sale. Close cooperation between the woman's page and the advertising department will help to bring ads into the paper on the days when these pictures are run. Close cooperation is needed likewise between the picture editor and the woman's page. In many an office these pictures go to waste or are turned over to the right person so late that they have lost the value they could have. When the picture situation on the paper is well handled, they will be used, but they will be supplemented by pictures taken by the newspaper cameraman or by a local photographer. These shots can be arranged for with the heads of department stores and shops and will make use of merchandise about to go on sale. The shop or the newspaper can usually find a pretty girl to pose in an evening gown or wear a pair of shoes while the photographer snaps her. These fashion photographs *in no case carry any reference to a store or to price,* but they do go far toward creating advertiser good will and toward stimulating interest in *new styles that are obtainable* in the city.

Fashion photographs often seem a little tame, and it is a problem how to play them, and how to dramatize the new styles. The wealthy metropolitan newspaper may prefer to send an

artist out to sketch the styles, but with a limited budget this is not always feasible. Most of the New York designers (and even the Paris *couturiers*) will *lend* original drawings, to be used and returned, if the fashion editor will write and ask for them. However, these drawings will prove difficult to tie up with local offerings and should only be resorted to as an occasional innovation on the page.

Photographs must be watched for their style detail. If the subject was improperly lighted, it may reveal nothing but general tone and outline, and, though this may make a soft and pleasing picture, it is *not enough* from the stylist's point of view. Good lighting will bring out the buttons and tucks and shirring on the dress, the small trimming features on the hat, the pattern on the shoe leather or on the gloves or bag.

Now and then a beauty picture will take the place of the fashion layout on the page. This may be a photograph furnished by a syndicate, or it may be locally posed. Its purpose—and it must show plenty of detail, too—is to demonstrate how to apply mascara to the eyelashes or rouge to the lips or cheeks, how to do the hair in the latest coiffure, how to prune and paint the fingernails or toenails, or how to lift one's face with an egg mask or a night strap. Though men may laugh, women look at such pictures, and they have an obvious relation to advertising. When a beauty column is written by a woman on the paper, almost any subject she chooses can be illustrated at no expense out of Hollywood publicity pictures. These usually come to the movie critic, not to the woman's page, but the picture editor will make a practice of going over them to take out shots that have lost timeliness for the movie columns but can be useful elsewhere in the paper. These Hollywood pictures are always wonderful copy and contain many poses that illustrate beauty articles nicely.

Of course there are free Hollywood fashion pictures too. When they are simple, and can be tied up with local shop offerings, they may be used. Even when they do not, an occasional one may lend glamour to a layout, but they should not be overdone. Sometimes an arrangement can be made with local shopkeepers to feature such things as a "Shirley Temple wardrobe," and the pictures can be obtained from the local publicity office or from Hollywood. A word of warning to the picture

editor here: it has happened that Hollywood fashion pictures have been *copied and sold* by free-lancers, but the well-informed picture editor does not fall into any such trap as this. Good Hollywood fashion shots are often serviced by The Associated Press and other news picture agencies, and this is legitimate, when it comes as a part of the newspaper's regular service.

Simple, striking layouts with diagonal feeling, or single cuts used to create diagonal feeling on the page, are more effective than a great deal of fancy decoration on woman's pages. Crop fashion pictures in rectangles or other simple geometric forms.

Often it is typographically as well as pictorially that the woman's pages sin against good taste, the reason being that there is a desire to change pace from the rest of the paper. Simple head types remain better than amazing concoctions of hand lettering. If the newspaper is one that uses Bodoni heads elsewhere, or one of the modern sans-serif types, a square-serif letter like Karnak lightface may be chosen for special columns and for underlines in 10 point; Tempo, a sans-serif letter will make a contrast with Bodoni; and Caslon will accord with Bodoni nicely. Garamond may do well on certain woman's pages, though not too "modern" in its appeal.

The point is: choose your type and stick to it. If boxed heads are used, let them be simple rules, not curlicues. Stay away from ornament. Let the page presentation be simple and strong. That advice has been repeated many times in this book, but some of the woman's pages need it most of all.

The Daily Picture Page

We discussed the mechanics of laying out a daily picture page in an earlier chapter. Some papers now use a mat service for their picture page, but local pictures have great appeal, too, and where facilities permit should be used along with those from distant places. When desired the mat may be cropped by drawing a line on the face of it to indicate to the stereotypers what part is to be left out. A picture may be removed from the mat in this way and a cut of a local newsphoto of the identical size inserted in the resulting hole in the flat cast. Picture pages reveal many examples of bad layout. Often there is no cohesion between unrelated shots, nearly of a size, used to fill the page

space. Cutlines are small news stories and in regular body type lend the page an air of dullness.

A good picture page carries a banner line across the top or a dominant picture and a squared-off heading in good-sized type at the top. Cutlines should tell their story *briefly*, with vigor and spriteliness, even with humor if it is *good* humor, but they should avoid slanginess, cheapness, vulgarity. What an apprentice caption writer imagines to be clever may not appeal to refined readers of the paper. A good caption writer, like a good headline writer, is a man of real value to his paper. He is a master of the terse, pithy phrase that puts the story over. It is a good thing to study the caption methods of *Time* magazine, if only to learn the secret of their brevity. However, do not imitate them on a picture page. Here the picture and caption must tell the whole story, since they stand alone.

Some papers put the first word or two of the caption in larger type, or precede the caption with a sort of brief head or summary. This may serve to catch the reader's attention, but there should not be too great a difference between the size type used in this introductory phrase and the caption itself, or the little spots of dark type will draw the eye away from the pictures.

Captions look better in a face that has sufficient strength. Ordinary body type looks washed out on a page of dark halftones. Use 10-point Caslon boldface, 12-point Garamond boldface, 10-point Stymie medium, 10-point Tempo medium, Bernhard Gothic medium, or some other type of your choice, but see that the type you choose has enough weight to match the tone of the newsphotos.

A. APPLICATION EXERCISES

1. Examine the editorial pages of three different daily newspapers. Rate these pages for their attractiveness of layout. Justify your rating specifically.

2. Show these three pages to five non-journalistic adults without prejudicing comment. Ask them to rate the pages for reader-enticing appearance. Compare their judgments with your own.

3. Assume that your newspaper clientele consists largely of readers who prefer a dignified, scholarly, yet lively and easy-to-read editorial interpretation. On Bristol board or blank paper the size of the editorial page, lay out a page which you think would appeal graphically to this clientele, using the editorial-page contents of the page which you ranked last in Exercise 1.

4. Assume that your clientele consists largely of readers who prefer a sensational coverage of big news, crime, and human-interest stories. Confining yourself to the news and feature material presented in any one copy of the three papers you used for Exercise 1, lay out on Bristol board or paper an editorial-page layout for the next day's issue which you believe would best suit such a clientele, suggesting the topics you would handle editorially.

5. On Bristol board or paper lay out an editorial page after the manner of any one of the four suggestions indicated in this chapter in the section entitled, "Ideas for Spotting the Page," which you have *not* used for previous exercises. For this purpose, confine yourself to the contents of any one of the three editorial pages previously rated.

6. Select three woman's pages, three society pages, three sports pages, and three picture pages from three or more different daily newspapers. Rate the woman's pages, society, sports, and picture pages for graphic appeal. Suggest at least one improvement for the poorest page in the group. Be prepared to justify in class your ratings and suggestions for improvement.

B. CHAPTER-ORGANIZING QUESTIONS

1. May the masthead of an editorial page be dispensed with? What bearing do you think the masthead, when placed at the top of a column, has upon the reader interest of an editorial immediately below it?

2. What do you think of the practice that some editorial pages follow of printing the name of the editor in the upper left corner of the editorial page, dropping the masthead to the lower left corner? What would you think of printing a ½-column cut of the publisher and of the chief editorial writer in the masthead?

3. What in your opinion are the relative merits of using 12 to 13 em columns for editorials or 17 to 19½ em columns for editorials? Justify your answer.

4. If wider columns are used for editorial matter, what mechanical restrictions must be considered?

5. What are the advantages or disadvantages of dropping out column rules from an editorial page? If column rules are dropped, what also must be done for legibility?

6. What advantage is there to printing ½-column cuts of the authors of special columns, besides the advantage of spotting the page?

7. How may the gray appearance of editorial columns be relieved?

8. In the editorial pages which you examined for the exercises in this chapter, what proportion of the editorial topics discussed came from news of happenings or conditions within the trade area of the newspaper in which they were published?

9. What is meant by a blind column at the top of an editorial page, and why is its effect said to be weak? Is this charge of weakness true if the blind portion extends no more than 3 in. from the top?

10. What specific advantage is there in using news photographs on an editorial page? Are there any disadvantages in certain types of news pictures on an editorial page?

11. Examine an editorial page from the New York *Daily News*. What advantages and disadvantages can you see in running small cropped news photographs into the type of the editorials on this page?

12. What do you think of illustrating at least one editorial with 1½-column or 2-column charts or maps?

13. How may diagonal effect be gained with pictures on an editorial page?

14. Describe four methods of effectively spotting an editorial page.

15. What restrictions must be put upon a newspaper front page if a split page is to be devoted daily to local news?

16. What specific advantages are there in the use of a split page for sports news?

17. How may local pictures be used on a split page to build circulation?

18. Explain both advantages and disadvantages in the *World-Telegram's* use of split pages.

19. What local tie-up should be striven for in selecting pictures for the woman's page? What type face and sizes may be used effectively for special columns and underlines on woman's pages in newspapers which use Bodoni heads elsewhere?

20. How may a locally written beauty column be effectively illustrated at no expense to the newspaper?

21. Explain ways in which society pages may be given liveliness without losing dignity or good taste.

22. What objection is there to relying exclusively upon a mat service for a newspaper's picture page?

23. What care must be taken with the type used for picture page captions? List five type faces and sizes which give satisfactory effects for picture-page captions.

Chapter XIX

THE SUNDAY PAPER; LAYOUTS FOR LARGE-FORMAT AND TABLOID MAGAZINE PAGES

PREVIEW QUERIES

Did you devote as much as an hour to a Sunday newspaper on each of the last two Sundays? In how many different sections did you read as much as one column, other than the front page?

Did you read as many as three advertisements in each of these Sunday newspapers?

What, if any, sections of a Sunday newspaper do you seldom or never read? Why?

According to your general impression, are the Sunday papers with which you are familiar *more* attractive or *less* attractive than daily newspapers? Why?

Do weekly news reviews in the last Sunday paper that you read which contained them seem compellingly presented with respect to graphic appeal, or did you read them entirely because you are intrinsically interested in the contents of a news review?

Do you feel that there is more similarity between various Sunday newspapers than between daily newspapers?

Do you read the society section of any Sunday newspaper regularly? Is your general impression of this page one of sheer social news or gossip, or one of appropriate aliveness and well-bred glamour?

Have you read within the last two weeks as many as two articles or feature stories in a tabloid-format magazine supplement of a Sunday newspaper? Do the tabloid supplements of Sunday newspapers impress you as more or less interesting than the large-format sections of the Sunday paper?

RECENTLY some pertinent questions were put to the Sunday editor of a paper in a city of 125,000 inhabitants. The Sunday newspaper was the combined edition of a morning and afternoon paper, and there was no competitor in the field. Its sale extended over several counties. Yet the Sunday circulation was only a third of the combined daily figures.

"What are your plans for getting and using pictures in the Sunday paper?" this editor was asked. He looked dumb-struck, then said: "I don't know what you mean. I've got nothing to do with that. I'm no photographer."

"But you do use photographs—in fact, the Sunday sections are crammed with them."

"Oh, sure. Readers send 'em in, and we have to use them. They get mad unless you do. But we don't have to ask for any. We just run them for circulation purposes."

As a circulation builder, these photographs that "just had to be run" had not been very successful. They were wedged into the pages everywhere, wherever a spot could be made for one. They were cabinet photographs of the dull, dreary, expressionless variety. Each separate picture may have pleased *one reader* tremendously, but taken as a whole they could please no one. Yet they occupied at least a third of the reading space. Cropped in ovals, oblongs, and circles of all sizes, they produced an effect that made one's head swim.

Needless to say, there are many Sunday editors who have a better conception of their job than this one did, but there are also many who still do not realize the financial loss such art represents to the paper—loss in reader interest and therefore in circulation; loss in advertising; loss through heavy engraving costs that bring no return. An editor may think he cannot afford to omit such dull pictures; the truth is *he cannot afford to run them.*

Sunday Paper of the Future

Some publishers have wondered whether the Sunday paper was not a carry-over from the past, now "on its way out." They have argued that there are so many other things for the average family to do on Sunday, there is no longer any time for reading. The automobile, with radio attachment, takes them far from home, to listen to music while they grow acquainted with new scenes. In answer to this it might be pointed out that just as they take the radio along they will carry along the Sunday paper, if it has come to represent to the various members of the family real entertainment, a real opportunity to catch up with the news of the world, and real vistas of thought which, like Sunday's landscapes, may be culled over during the week to come.

Publishers argued similarly that the Sunday rotogravure section was a hang-over from the days when people could not see newsreels of events around the globe. They were about to pronounce the death sentence on these expensive picture supplements which failed to draw advertising, when the appear-

ance of *Life,* followed by a whole galaxy of picture magazines, proved to them that they had been wrong. The readers wanted pictures, and the advertisers crowded to this new medium, so eager to sign contracts that they could scarcely be accommodated. It was just the newspaper presentation, old-fashioned and uninspired, which had made the readers yawn. The fact that they failed to react to a poor spectacle did not mean they could not appreciate a good one.

Perhaps something of the same sort must be realized in regard to the Sunday paper. Too often it stands still. It must change for the better or die. Its editing *must* be energetic, and its presentation *must* be smart and modern, for readers do not react favorably to Victorian pages. They have eyes that have been trained by the motion-picture industry to appreciate exquisite visual images. A Sunday paper edited by an inexperienced amateur is about as appealing to them as the operatic screeching of an untutored vocalist, now that they can listen to superb singing by turning a button on the radio. The quality of the product must be improved.

What Is a Sunday Paper?

Contrary to uninformed notions, the Sunday paper is not a dump for filler stories and for pictures which subscribers send in so that they may see their faces in the paper. Besides carrying the regular daily news, it is a well-organized, well-rounded medium of entertainment and information for the entire family, from the small boy who wants it only for the "funnies" to mother who reads the woman's and society pages and the fashions, grandmother who likes the fiction story, grandfather who follows a hobby for which he finds material in its pages, daughter who is musical, sister who is artistic. The adults may want to find in the paper a weekly summary of the news and articles of news commentary. Adolescents may prefer the latest glamorous details of Hollywood's movie stars. The Sunday paper is like a well-stocked department store. It has something for everyone.

The Sunday paper is a *news*paper, too. Not only in its first, or news, section, but in all its other sections, it has to do with news, and features of the news, with people who are in the news, with trends, modern ideas, arts, and foibles. Its feature sections reflect the life and thought of Americans today and of other

nations around the globe. Because what it offers has the peculiar quality of timeliness, it makes abundant use of photography to tell its many-sided story.

The Sunday paper is an advertising medium. Its bulk is dependent, not entirely on what readers want, but on the amount of advertising that must be balanced by reading matter. This advertising is in itself "good reading" to many people, particularly to women. The situation might almost be summed up by saying that "pages which attract readers will attract advertising, and pages which attract advertising will attract more readers." Obviously there is every reason for giving Sunday pages the maximum of reading interest and of graphic appeal.

The Sunday Sections

The material, then, for the Sunday paper, is widely diversified and must be gathered into sections with as much logic and good management as possible. Before considering the Sunday picture problem in detail, it might be well to cast a glance at the general line-up of sections. These vary greatly with individual newspapers, but almost any newspaper will show *some* sections from the following list:

1. *Regular news section,* similar to the daily.
2. *Sports section.* This may be combined with the news section.
3. *Special articles section,* containing articles on politics and foreign affairs, a news review, science articles, editorials, book reviews.
4. *Society and woman's section.* News of society events, women's clubs and the fraternal organizations. It may also contain women's feature pages such as fashion, interior decorating, cooking, beauty.
5. *Large-format feature section.* Some or all of the pages may be bought in mat form from syndicates and may include any or all of such subjects as fiction, news features, Hollywood features, women's features.
6. *Tabloid magazine.* Similar in content to the large-format feature section. Many newspapers now buy a complete tabloid section published in rotogravure; a few print their own.
7. *Theater section.* Review and comment on stage, screen, radio, art and music, and the dance. It may be turned into a general entertainment section to take the place of the popular feature section and can include page spreads on Hollywood and radio stars and such departments as hobbies, bridge, etc.

8. *Travel section or school section.* These may be combined in a single section, using the front page for travel in the warm months, and for schools in the winter, or a travel section may appear semiannually, if there is sufficient advertising.
9. *Books.* Book advertising supports such a section only on a few of the largest papers. See special articles section, above.
10. *Real estate.* Such a section is largely controlled by the advertising department.
11. *Financial.* Only the largest papers would have a separate section. Financial pages may be included in another part of the paper, such as real estate.
12. *Children's feature section.* Many newspapers buy a tabloid section complete for children.
13. *Comics.*
14. *Rotogravure section.* Really a Sunday picture magazine in large or tabloid format.

From this list of possible sections it is evident that the Sunday line-up is flexible, that pages which appear in one section in one paper may be found elsewhere in another; that material may either be developed on the newspaper or purchased in the form of page mats or clip sheets and art or else as a completely printed section which is stuffed into the Sunday paper by the mailers.

The picture editor should have a clear idea of what is developed on his paper, and by whom, and of what is purchased on the outside, and in what form. Then he will be able to organize his job so as to lend the greatest possible assistance to the Sunday editor and to department heads who develop material for the Sunday paper. The Sunday editor also needs to have the whole situation in mind, so as to plan a well-rounded paper, assist department heads to get interesting stories and attractive art and layouts for Sunday pages, and accord purchased material with the general style of the paper in so far as possible.

Variety in Front-page Layouts

The Sunday sections need *variety of presentation.* They must be planned so they do not all look alike. This is not difficult, if each aims at reflecting the type of material it contains. Variety will be obtained by *layout* and by *typography.* Of course the main news section will be handled as on other days. The remainder of the Sunday sections will remain in keeping with the general character of the paper, but each will show a char-

acteristic style of presentation which distinguishes it to the reader's eye. Thus, the special articles section may use symmetric layout on its front page, suggesting dignity; while a popular feature section may be strongly asymmetric; a society front page may crop its lively candid shots of social events in interesting geometric forms; while a tabloid feature section uses layout with pattern. A theater section may regularly employ special screens or stipples or dropped-out whites to dramatize its front-page pictures of the stars.

The newspaper's regular headline style will be more or less closely adhered to throughout the Sunday paper, but some sections may use the boldface of the head type, others the lightface, for the sake of variety. A popular feature section may abandon headline style for hand lettering or for other faces which reflect the lively character of the material.

Only by careful planning can the foundation be laid for an attractive and diversified Sunday line-up of sections that appeal to the reader's eye and that do not repel him by their monotonous appearance.

Art for Sunday Pages

When general plans have been worked out, the next step is to develop an organization and system for bringing into the Sunday paper a regular stream of pictures with which dynamic page layouts can be built. This is a task which will require all the resourcefulness and inventive genius of Sunday editor and picture editor. It may mean reeducating the commercial photographers in the community and the readers themselves. It will often mean changing the ideas of department heads who have been used to preparing pages in the easiest way week after week, year after year, and who are resistant to progress. It will always mean looking ahead and charting possible picture needs.

Special Articles Section

Many pictures for this section will be drawn from those which have been flowing into the office all week, from newsphoto services and from staff photographers. Those which were good copy, and timely, but which were not used in the daily, may be the very ones required to make striking Sunday layouts. Even those which were used in the daily can be given a different treat-

ment. Enlarged or reduced, with a change of cropping and a new layout, they will seem fresh to the reader's eye.

The picture editor should keep Sunday requirements in mind as he goes through the pictures each day; the Sunday editor should make it a habit to glance through all pictures after the news room has made its selections and before they are sent to the morgue to be filed. He can retain any he thinks may fit articles he has scheduled. Others he will find in the morgue. He may have a long-range discussion of the labor movement and will draw on the morgue files for pictures that go back over a period of several years. A political article may get a layout of candid shots of the men it mentions, all drawn from the files. A good collection of foreign news pictures will be drawn on for Sunday pages continuously. If these morgue files seem weak in any particular direction, the picture editor should assume the responsibility for getting new pictures to build them up. If the section is planned early, there will be time to see what pictures are lacking and to query the regular services, the commercial picture agencies, and other newsphoto sources.

The special articles section is close on the heels of the main news in its use of newsphotos, but it should handle them differently. News pages frequently used single cuts or simple picture groups. Sunday pages can go into the more important pastedowns, photomontages, and other dramatic forms. Drawings and cartoons will combine with the halftones effectively. Cartoons may be had for the trouble of clipping them from out-of-town papers, gumming them down on Bristol board, and giving them to the engraver to reproduce as line cuts. Two or more may often be worked into a layout, of course with credit to the newspapers where they originated.

Makeup for Special Articles. If symmetric makeup is used in this section, the type will probably be put in according to what is known as "wrap-around" style. The principal story takes a banner across the top of the page and is run full to the bottom of the page in the first and eighth columns, but is held shallow across the upper portion of the other 6 columns, to leave room for a 6-column head near the fold. This secondary story similarly wraps around one with a 4-column head lower down. The principal layout is on the lead story, but the second story may also take a picture under its head, or the page may have

matching cuts in the two lower corners, either on the lead or on the secondary story. This general scheme is often modified by using two stories, one on each side of the page at the top, with a layout separating them. A banner line may read into one of them and be ruled off from the other.

Symmetric makeup may be used for some pages and abandoned on others for contrast, using an asymmetric picture layout. Sometimes the front page may be given an asymmetric treatment with a special feature spotted by placing it in a box with a heavier rule around it, after the manner of a small page superimposed on a large one.

Weekly Review of the News

In this, as in many other things, the newspaper has been taking lessons from the magazine field. The popularity of *Time* proved that there was a market for something in the nature of a résumé of important events the world around, if written in spritely style and neatly presented. Probably what newspapers have overlooked was that presentation had much to do with *Time's* success, both from the writing and from the visual standpoint. *Time's* reading matter is expertly seasoned, and *its pages look entertaining.* Its pictures are small but well chosen and its cutlines epigrammatic.

The newspaper seeking to capitalize on the vogue for news reviews which *Time* inaugurated should see to it that everything about such a page or pages is the reverse of stuffy. Since the printing and distribution of the Sunday paper locally can be accomplished with much greater speed than can the national distribution of a magazine, it is always easy to keep this feature more up-to-the-minute than the news magazine can be. In spite of that, such pages are often so dull and unattractive in appearance that they probably are little read.

The New York *Times* employs for the most part a large picture layout across the top of the news review, thus giving it an appearance similar to other Sunday pages, and a page bottom that is decidedly gray. Since many stories are briefly handled on the page, it seems that a better plan would be to resort to a special form of layout and picture treatment, one that is frankly reminiscent of *Time.* This can be done by using an assortment of newsphotos relating to the stories covered. These photos are reduced

to a half or even a quarter of the size in which they would be reproduced for the daily. Thus a scene involving a group, which would be made up in 3 or 4 columns for the daily, becomes a 2-column cut. For good results only photos which are excellent copy for reproduction will be selected for the news review.

A national-news layout of these extra-small pictures can be spread across the top of the page, a secondary layout of foreign news can be used near the fold, and the lower corners of the page may take lively little pictures of people who have been headliners during the week in other departments of the news. A 2-column box of boldface bulletins, 2 or 3 lines each, giving the biggest stories at a flash, last-minute bulletins, or quotations of pithy remarks culled from the week's news, will further lend to the appearance of the page. Symmetric makeup will probably look best, particularly if this is the front page of the section. It should carry a banner and be well broken up typographically, with heads for departments and for stories, with subheads, full-face paragraphs, boxes, bulletins, and any other device which can serve to make it *interesting to the eye.*

To be acceptable for the news review, photos should be candid shots or have action and animation. Nothing *dull* should ever find its place here, and newsphotos that can only tell their story if enlarged to make an important spread on the page would be better reserved for articles of news comment.

Society and Woman's Section

Sunday society pages throughout the country probably show the dullest pictures and layouts, the reason being that studio portraits are used which lack animation and that stiff traditional page arrangements are followed year in and year out. Who is not familiar with the ovals and oblongs of the front page of society? There is a twofold job to be accomplished here, one that challenges the imagination of picture editor, Sunday editor, and society editor. Good action photos of parties and social events would bring the Sunday society section to life. The women themselves can be encouraged to bring in such pictures and so can the local commercial studios. It may be necessary to "start the vogue" for action shots of the gay side of community life, and perhaps a promotion job will have to be done for the idea, but it is worth it. The society section should be glamorous.

In the springtime, women can be photographed in their gardens, motoring, at lawn parties, with their children or pets in outdoor surroundings. In the winter, at their bridge parties, dances, dinners. When none of these photos with background can be obtained, at least insist that the commercial photographer strive for animation—the candid quality—in his pictures, if he wants to see his credit line in the Sunday paper. Such pictures, once obtained, should be worked into striking layouts. The more animated they are, the less they will fit into the old forms. *Layout with pattern*, as opposed to merely asymmetric layout, can nowhere be better employed than on front-page society. Properly handled, the section can rival the Sunday roto as a lively, fascinating *picture magazine* of the whole life of the community—a far cry from what it is today.

News of the women's clubs and fraternities, which will probably be included in this part of the Sunday paper, needs the same sort of animated treatment. As a matter of fact, club pictures can be secured long in advance and used from time to time as there is call for them, making this type of page easy to illustrate. The picture editor should keep a list of all the women's clubs and fraternal organizations in the community, with the meeting place and time indicated. By working on this list he can gradually build up a small collection of good shots taken at the meetings. He may have to call the club presidents on the telephone and talk things over with them, suggesting what sort of pictures the paper would like to have in its files and perhaps leaving it up to the club to call in a photographer and arrange an *animated* group shot. He may be able to assign a staff cameraman occasionally to one of these meetings, to get five or six different group shots for the picture morgue; then it will be possible to draw on these for Sunday pages, rather than on the dull cabinet photos sent in by members.

Syndicated mats are often used for interior decorating and cooking articles, though here again are subjects which lend themselves to good illustration in the local field, if the newspaper cares to do the work. In any case the picture editor should insist on good illustration. Interior decorating shots in particular are apt to show bad retouching, visible in clearly defined lines around the outlines of furniture, etc., which greatly mar the effect. When pictures are furnished by syndicates they are

sometimes not from the original negative but are very dull copies of an original print.

Popular Feature Section in Large Format

Originality, gaiety, spriteliness, boldness of presentation are all desirable in a popular feature section, but the trained eye comes to distinguish between boldly effective and original display and tawdry hodgepodge of pictures scattered over the page. When the newspaper buys its pages complete, in mat form or as a printed supplement which is merely added to the Sunday paper, it is more or less obliged to use what it gets. However, it would not get so poor a product as it sometimes does but for the fact that there is much loose thinking about what constitutes an effective feature page.

Advertisers are smart enough to know that defying the laws of graphic display does not reap them a rich reward; that a jumbled and disorderly layout using a dozen different type faces and an assortment of drawings and photographs in odd sizes and shapes is repellent rather than attractive to the reader. They know how to get attention value for their ad by strong but simple graphic design. There is still a myth among newspaper people that the more horrifyingly bad the treatment of a feature page the more "popular" it will seem. The idea is the reverse of common sense. Readers do read such pages for their popular feature content, but they do not react to them as layout could make them do.

We are streamlining so many things about the newspaper, it is time to streamline these popular features. To that end the photos used and the drawings as well should be made to conform to simple geometric patterns, combined with bold asymmetric handling. The amorphous layouts of drawings intermingling with large and small photographs (some the size of postage stamps), which we so often see, should be relegated to a museum of ancient oddities. They belong to an era of amateurism in newspaper page layout, and they do not correspond to modern tastes at all. As a matter of fact, change is being forced upon these feature sections. Once again the influence comes from the magazine field, where modern layout is beginning to mold popular tastes and create a reader reaction in favor of the graphic arts. Better design, more modern feeling, greater simplicity

and directness of visual appeal—these are the elements which should help to make the feature page of the future. The newspaper which originates its own Sunday feature pages can work to this end, and it can make its voice heard with the national syndicates from which it buys features.

Feature-page Mats. Often full-page mats of Hollywood and radio and other popular features are purchased for the Sunday paper. When these do not meet style requirements they may frequently be changed and improved at little expense. The chief faults of such page mats are: bad hand lettering, badly arranged layouts, page width which does not correspond to that of the newspaper. To remedy these defects, give the mat to the stereotypers, with instructions to make separate flat casts of the art and of the type portions of the page. They will saw these apart in the cast, will separate parts of the picture layout where this seems feasible, and will mortise out the head, so that a new one may be set or hand-lettered and fitted into the space. Sometimes it is possible to get the pictures in several units and redistribute them on the page for better effect. It may be necessary to reset the type. If the mat is too narrow, the art can usually be spread, and the type either used and an extra column of filler added or the page reset. Even if resetting is done on such a page it by no means involves the expense there would have been in developing the feature in the first place. The story itself in most cases would have cost considerably more than the mat, and there would also have been engraving costs.

The editor *should never cut the page mat* but should mark it with lines indicating how he wishes it divided or should hand it to the boss stereotyper, foreman of the composing room, or mechanical superintendent, with an explanation of what is to be done. The stereotypers will often make two flat casts of the page, so that they may more readily cut up the metal to obtain the parts desired.

The Sunday Tabloid Magazine

Many newspapers are now including in their Sunday paper a national syndicated tabloid magazine of features and fiction. A few, like the New York *Times* and the New York *Daily News*, are producing a tabloid magazine section of their own which is outstanding in its field.

Most of these magazines are published in rotogravure and make wide use of color. There is no more striking evidence of the technical advances that have been made in recent years than the perfect legibility of their text type. It used to be considered impossible for roto reproduction to maintain the perfect clarity of the body type, but that criticism has been removed.

The tabloid magazine is a good place for layout with pattern. A daily tabloid must stick to simple picture forms and usually to separate cuts, but the Sunday magazine in tabloid form has a chance to be strongly original. It can get motion into its pages with arcs and diagonal bands, with balance of large and small shapes. It can use three-dimensional forms effectively. Its layouts should use every means to attain dramatic results with modern feeling. In this respect the New York *Times* Magazine offers an excellent example of dramatization without loss of dignity.

Layouts are still to be found in the tabloid magazines which, despite the splendid reproduction processes they command, the use of color, and even full-color work, look decidedly out-of-date. The reason may sometimes be found in the choice of subject. Sentimentality is excessive, reader content too low, and layout often lacks the "streamline" quality, proving that picture editor and art department do not consistently keep step with the progress of engraver and technician.

Theater and Movie Section

An abundance of excellent art is always available for the theater and movie section. Publicity photos sent out by Hollywood producers are among the best from the reproduction standpoint the newspaper receives and often lend themselves to striking treatment. They should be used large enough to have dramatic values and not in crazy-quilt arrangements. The front page may employ either symmetric or asymmetric layout. Dropped-out whites and special screens and art and engraving techniques will help to give the section an individual appearance.

If an art page is used in this section, it will be a good spot for a weekly column on amateur photography, edited by one of the newspaper's cameramen. Amateur shots submitted by readers can be used on the page and in other parts of the Sunday paper. Stirring up interest in the art of photography and the graphic

arts in general is a good way to start a stream of really fine pictures flowing into the paper. Local art exhibitions will provide illustrations, and others may be obtained by writing to art museums throughout the country where special exhibitions are being held which deserve mention in the Sunday columns. Local artists will occasionally make good feature stories. The public library's picture collection may be worth exploiting, and new books on art subjects can form the basis of articles and pictures.

Articles on music will often feature pictures of visiting celebrities, but they should not overlook the picture possibilities of local groups, school orchestras, and festivals which can lend color and action to the page. Local interest can also be injected into pictures used for syndicated bridge columns, hobby articles, etc.

Travel and Schools

Many pictures used for a travel and resort section are necessarily of a publicity nature, yet a little effort of imagination will often lift the front-page layout out of the ordinary. One might, for instance, pick out all the interesting destinations within the radius of a week-end auto trip and spot the photos as halftones on a large map reproduced in line occupying most of the page. Historic pictures of famous resorts might be used in contrast with present-day scenes. Staff members leaving on vacations might be asked to bring back pictures taken along their route, which might very possibly furnish an interesting Sunday page. The ingenious editor will find ways to keep the page from looking the same, week after week. People develop a blind spot for the too familiar and must be startled into fresh seeing. Usually travel ads are striking enough, and so inside travel pages require less attention.

As previously noted, it may be a good idea to have a section devoted to travel and resorts during the vacation months, to schools during the winter. On papers which cannot support such a section regularly, it may be possible to have a semiannual travel section.

For a school page any community offers a wealth of interesting material. Nature study classes, woodworking classes, athletic activities, and dramatics, all are interesting subjects for photog-

raphy. School principals will almost always cooperate, if a cameraman from the newspaper is occasionally assigned to cover educational activities. Such pictures are circulation builders, for they please many families.

Other Sections

Perhaps not much can be done by a picture editor to improve such sections as real estate or the financial pages of the Sunday paper, yet he should keep his eye on them and be ready to offer occasional suggestions. Too often the illustrations in the editorial columns of real estate exactly duplicate those in the advertisements alongside them. A better job could be done by the advertising department, which handles this, if it arranged to pose a pretty girl in the kitchen of the model home or in some other fashion brought human interest and action into the photos used.

A children's section is usually bought ready-made if used at all. The best known section of this sort is a tabloid following regular tabloid news page makeup, with stories and illustrations adapted to children.

In summary, it might be said of the Sunday paper that it uses more dramatic layouts than the daily wherever possible. The real problem of the Sunday is to substitute action pictures for dull, stereotyped illustration. This can best be done by intensive study and cultivation of the best sources for pictures.

A. APPLICATION EXERCISES

1. Procure a copy of what you regard as the best Sunday newspaper on sale in your community. Examine the front page. Confining yourself to news in this paper, write a description of a picture layout which you believe would improve the reader interest of the front page and at the same time induce you to *turn to inside pages or sections.*

2. Turn through the pages of this Sunday paper. Rate each different section of the paper for its comparative reader interest with respect to the graphic makeup, including news photographs, of (1) front page of each section, (2) the inside pages of each section.

3. Take the editorial or special articles section of the copy which you procured for Exercise 1. Confining yourself to the contents of this section, lay out on Bristol board or large blank paper a new first page for this section which you believe accomplishes two ends: a more attractive, yet appropriately dignified, graphic appearance calculated to induce a reader to stop and read that section as he thumbs through the several sections of

the entire newspaper; an inducement on this first page to read inside pages of this section, perhaps inside pages of other sections.

4. Turn to the weekly review of the news part of this Sunday paper, if it has one; if it does not have such a department, examine such a feature in some other Sunday paper. On Bristol board or blank paper, lay out a domestic-news review and a foreign-news review indicating how you would give appropriate graphic appeal and prevent a dull effect.

5. On Bristol board or blank paper lay out an effective society page, confining yourself to the content of the society page of the paper selected for Exercise 1, but indicating some different pictures, if you think it advisable. Try to get an appropriate glamour. Indicate pictures which it would be practicable to secure, however.

B. CHAPTER-ORGANIZING QUESTIONS

1. By asking five adult non-journalistic acquaintances specific, objective questions, try to discover whether these persons devote more or less time to Sunday-paper reading than to daily-paper reading. What sections of their Sunday papers do they skip entirely or find least interesting? Try to discover whether they find the syndicated material in Sunday papers more interesting to them than the spot news or locally prepared interpretation. Try to discover how effective they find photo presentation in Sunday papers, compared with the photographic presentation of daily papers. Be prepared to discuss your findings in class.

2. At a recent national publishers' meeting, the charge was made that nationally syndicated material, because of its economy, had excluded much local material which increased size of a Sunday paper would accommodate, thus deadening the paper for readers and injuring it as an advertising medium. Using the paper procured for Exercise 1, support or rebut this argument.

3. Can a Sunday editor afford to leave out photographs sent in by his readers? Justify your answer.

4. What did picture magazines prove to newspaper publishers who had concluded that the Sunday rotogravure section had been displaced by newsreels? What predominant element must the Sunday paper contain other than a spacious repository for long feature articles and syndicated material?

5. What commercial value is there in a children's section other than the appeal to parents to buy a paper which their children will find interesting? What besides making the best use of routine pictures should the Sunday and picture editors do to improve the photographic content of the Sunday paper?

6. From what two places in the newspaper office may pictures be obtained for a Sunday special article on the labor movement?

7. How may cartoons from other newspapers be used in the Sunday paper?

8. Explain what is meant by a "wrap-around" makeup.

9. What about *Time* magazine's presentation besides departmentalizing and the news review idea must *not* be overlooked in the news review portions

of the Sunday paper, if *Time* magazine's popularity is to be expected for this section of the Sunday paper?

10. Explain the specific ways in which the news review can be livened up.

11. List three principal faults with Sunday society pages as a whole. List three types of picture contents which can be used on Sunday society pages to replace studio portraits.

12. What plan may be used to build up interesting pictures of women's clubs and fraternal organizations in the community?

13. How may syndicated pictures for interior decorating and cooking articles be effectively localized?

14. Explain the makeup errors often seen in Sunday feature pages which, however, use a good many pictures.

15. What basic principle should be observed in making Sunday feature pages attractive?

16. List the chief faults of full-page mats for popular features. Explain what can be done to improve these at minimum cost.

17. Why should an editor never cut a page mat up with a pair of shears?

18. What strong reader-interest appeals are often found in the tabloid Sunday magazine? What outstanding faults?

Chapter XX

ROTOGRAVURE LAYOUT; CHOICE OF SUBJECTS; INTAGLIO PROCESS; ROTO PRINTING

PREVIEW QUERIES

What journalistic "dying horse" got on its feet and won a newspaper "steeplechase"?

What change in the content of rotogravure pictures was made necessary by newsreels and high-speed pictorial reporting in daily papers?

What did picture magazines prove to publishers about rotogravure sections?

What does the "roto" part of the term rotogravure signify which helps distinguish the rotogravure process from the halftone process?

Why are pictures for rotogravure never pasted down as they often are for halftone layouts?

How may type captions be given background so as not to detract with flattening white space from the unified effect of a rotogravure page?

By what simple device may a three-dimensional effect be obtained for page headings without the use of dimensional type faces?

How do the inked surfaces of a rotogravure cylinder sharply differ from the inked surfaces of a halftone plate?

What invention has made it possible within the last few years to print rotogravures in four colors at high speed?

What is the "doctor blade" in the rotogravure process?

IF there is any subject connected with the Sunday paper which justifies tense enthusiasm today, it is that of the rotogravure. Like a dying horse that got up and won a steeplechase, this pictorial supplement, after leading many to believe it had outlived its usefulness, has magically been revivified and may yet turn out to be the most potent factor of all in selling Sunday papers. Its story is an object lesson in what shortsightedness can do to kill a really good thing and how far a little constructive imagination may succeed in injecting life into it.

Roto got its start in the days when there was little or no pictorial reporting in daily newspapers, for the reason that halftone reproduction was slow and costly and technically not good enough

to be attractive on ordinary newsprint. News photography at its inception was not producing the vast news coverage of today, wirephoto had not made its appearance, and the pictures connected with a major event occurring at a great distance were perhaps not received until weeks afterward. Under these circumstances they no longer had the timeliness the daily required but they could be gathered together in the Sunday roto section, where, on better paper stock and with the better results which could be attained with intaglio etching and printing, they constituted a valuable Sunday feature.

Introduction of high speed in pictorial reporting and the achievement of speed and quality in newspaper halftone robbed the roto sections of the newsphotos which had been their raw material. The cream of these went into the daily, and the advertisers followed them in deserting a section which no longer had any distinctive reader appeal. Rotos for a number of years, until recently, were the dumping ground for newsphoto leftovers, stunt pictures, publicity pictures, and "leg" pictures of beautiful girls. Bathing suits, babies, and baskets of kittens reoccurred with boring frequency. The fact was that nobody any longer knew what the roto section could or should contain, and so whatever pictures belonged nowhere else were regarded as its rightful meat. Even the syndicates adopted this simple rule, servicing large numbers of meaningless specimens of nice photography as "roto pictures." A good thing, too, will always do with simple presentation, whereas a product without intrinsic interest usually gets some dressing up to try to make it acceptable. So roto layout reached the high point of fantasy. From the publisher's standpoint, it was a dead weight of investment without returns, and many foresaw that it would cease to exist.

Then something happened. A few far-seeing editors perceived that the roto still had immense possibilities, even though not as a medium of straight news photography. All it needed was a *selection of material which corresponded to actual interests*—in other words, intelligent editing. The birth of the news magazines, their overwhelming popularity, and their success in drawing national advertising left no doubt in anyone's mind concerning rotogravure's future. Today we are witnessing a nation-wide rejuvenation of the roto, with experimentation in format, in picture selection, and in technical problems.

What Is the Roto?

Because the roto can no longer command the cream of the spot news pictures is no reason to suppose that it is a section without timeliness. If that were true it would have no place in a newspaper at all. The roto is concerned with news on a broader base than *spot* news: with the whole life of our contemporary world. Where and why and how things are happening today—that is the story the roto has to tell, a story that every reader finds intensely interesting.

Roto pages are not directed to the eye alone, but *to the mind*, which desires to *realize* life more fully and adequately, and which can do so through pictures. Picture pages are engrossing, not because they contain a wild assortment of disconnected photographs of lion cubs and prize fighters and movie stars and ski jumpers, but because they give us *something to think about*, through their *connected presentation* of some phase of the modern world. The pictures which go into the roto section should be *pictorial features of the news*, either the immediate news or long-range news or that news which is inherent in the everyday life and activities of people of today, everywhere.

A Sunday feature story has a theme, or lead. It is not just a jumble of fine phrases, but it is written to tell about something. It may be an article on the trend of foreign dictatorships; or it may be an article on the town children and their vegetable gardens. In any case, it presents an orderly set of ideas and images, and that is precisely what the roto feature must do.

Since we are taking a page from the picture magazines in building the new rotogravure section, it seems worth while to quote here a recent advertisement of *Life*, in which that magazine sets forth its purpose and aims. Its picture creed is one which every roto editor might well adopt. It reads:

Pictures—the New Responsibility

Photographs, the great realists, can distort the truth by a wanton emphasis on the evil, the cruel, the sensational of life.

Life reports the news as it occurs; *Life* can not "protect" its readers from the shuddering truth about war and disaster. But *Life* shows other truth, the quieter truth from which the news headline violently erupts.

Life's mind-guided cameras have gone forth across the vast face of America and pictured its normal, pleasant expressions—its college life and small-town folkways, its wheat ripening in the sun, and its research proceeding patiently in busy laboratories.

Out of *Life's* resolve to make pictures responsible—as well as powerful —*Life's* editors have made a tremendous discovery: that millions of people can be as deeply interested in pictures of calm, daily life as in pictures of the accidental, the sudden, the explosive which makes the news.

By showing these simple stories side by side with its news-picture stories, by maintaining the good balance between the extraordinary and the ordinary, *Life* meets its obligation to show—not any one aspect of life—but *life.*

Roto then is news, but not spot news. It may follow the headlines, devoting a page or a part of a page to a side light or summary of an event of the week, or it may depart from the headlines altogether, seeking out all the human-interest themes and the matters demanding explanation and illumination in the local or the national or the international scene.

We have said enough to point the fact for the student that there are two main types of roto picture groups: one on the subject which merely needs to be explored and exposed in all its phases; the other on the subject which needs to be explained so that the mind can grasp it.

These are the sustained interest layouts, and the "continuities" or progressive interest layouts to which we referred in an earlier chapter. Either kind of picture group or roto page *tells a story,* but it does not do so in the same fashion. A group of pictures taken on college campuses where youths are demonstrating against a ruthless war in the Orient tells the story of the reactions of young Americans today, but there is no progression in such a story. The reader will be interested and he will grasp the facts, no matter how the shots are arranged on the page. Therefore this is the type of layout which should seek a certain variety in picture sizes and shapes, rather than rows of photos cropped to the same size.

The pictorial feature story of how cellulose becomes "silk" stockings, how a new dance step is executed, how heredity is studied through experiments with mice, how the design of the automobile has been transformed since the earliest horseless

wagon—these are all subjects which demand that the mind follow them according to a sequence. The layouts should reflect this orderly progression, using numbers if these are needed to put the sequence across, but not otherwise.

The test of how good a roto feature is, is the extent to which the picture group tells its own story, without the help of captions. The ideal pictorial feature would be so lucid that it would require no text at all. Such a happy result is seldom attained. Nevertheless, *the pictures must tell their story*, with as little help from captions as possible. For this it is necessary that the subject be well thought out in advance by the picture editor or by whoever assigns the photographer to get such a feature series. If it is a local feature, the editor should not rely on the cameraman to "go out and get some shots along this line," but should know in detail what he intends the picture group to show or to explain and should list the shots which he thinks are essential for the exposition. If the pictures have been received from one of the services, he should select them and crop them with the same thoughtful care, to see that each one *adds something to the theme of the layout.*

So, the roto of today does not use scattered shots of this or that, nor "beautiful" shots of no intrinsic interest. It uses pictures with a thought behind them, picture groups with *an idea or theme*, page layouts that have *a story to tell.* With this one condition, that there *must* be a thought content, the rotogravure can roam the contemporary field, far and wide, finding its material in almost everything.

Selecting Roto Pictures for Copy Values

Black-and-white glossy prints to be used for rotogravure cannot be retouched in the art department. This does not mean that they will get no retouching. A good deal of careful work will be done by the engraver on the film to bring it up to certain requirements for intaglio etching. It does mean that as nearly perfect copy, from the reproduction standpoint, as can be obtained should be selected for this section. The standards set forth earlier in this book, by which copy is judged for sharpness of focus, clarity of outlines and details, and good contrast in tone values, should be rigidly adhered to in choosing pictures for roto, since the gravure process softens outlines and details. The

shadows should show detail and tone contrast, too, lest they become splotches of monotonous dark tone in the printed picture.

Preparing Roto Pictures and Page Layouts

The all-insert layout, as described earlier, is used for roto pages. Pictures are never pasted down, as for some kinds of halftone work.

The layout is drawn to actual size on white Bristol board, showing where each picture and cutline and the page heading are to appear. Each picture is cropped and scaled for the spot it will occupy, the cropping being indicated with light pencil lines on the back of the print. For roto pages which carry advertising, dummies showing these ads must be furnished by the advertising department before any layout can be made.

The easiest procedure for laying out a roto page is as follows:

Thumbtack a large sheet of Bristol board to the drawing board, trueing it with the T square. Rule off on it an oblong with light pencil lines, in the exact page size, and rule in outlines of ads.

Now lay down over the Bristol board a large sheet of transparent tracing paper and thumbtack it in place. Trace onto it the page outline and the outline of any ads.

The remaining space on the page—or the whole space, if there are no ads—is to be filled with the picture group which has been selected. Choose the first or key picture, and slip it under the tracing paper (between this tracing paper and the Bristol board), pushing it up into the upper left-hand corner of the page. Perhaps you wish to use this picture same size, without reduction or enlargement, but cropped on the left and right to remove background. Push it over to the left so that the line of the page frame crops it on the side as you wish it to be. Now take your pencil and rule a line for the right-hand edge of the picture on the tracing paper, cropping it as desired. Complete the oblong for the picture with a horizontal rule. You now have the exact outline of the picture as you wish it to appear sketched onto the tracing paper. Remove the picture and lay it to one side but put no crop marks on it until you see how the whole layout works out.

If the page is to have a heading in large type a space for this should be blocked off on the tracing paper at the top of the page.

The layout is completed by trying the various pictures under the tracing paper and sketching in roughly on this the places they will occupy in the layout, leaving spaces of course for the necessary cutlines on each picture. It may be necessary to revise the arrangement somewhat, in order to get the pictures in with the best layout possible, but false moves will be easy to erase and correct on the tracing paper.

When the layout is satisfactory on the tracing paper, true up the lines you have sketched on this with T square and triangle and identify each picture space and caption space with a letter or number. Thus the first picture space will be marked (1) and the second picture space (2), while if a single caption serves for both these pictures, the caption space will be marked (1) (2). The space for the page heading will be marked "Heading."

Now slip one picture at a time into its exact position under the tracing paper and, with a pin or the point of a compass, punch a small hole through tracing paper, picture, and Bristol board at each of the four corners of the oblong sketched on the tracing paper. If the picture is to be enlarged or reduced, however, only the Bristol board and not the picture itself should be thus marked. When this has been carried out with each picture in the layout, the holes on the Bristol board will serve as a guide in ruling the completed layout with fine black India-ink lines.

Pictures to be used same size will be cropped by joining the punched holes with light pencil lines on the back. Those to be enlarged or reduced should have any desired cropping lightly indicated with pencil lines on the back, attention being paid of course to the fact that the picture must scale to the space allowed for it.

Then each picture will be marked with the number corresponding to its space in the layout, and the numbers will likewise be transferred to the Bristol board. When the roto is done, as usually, by an outside plant, layout and pictures should be rubber-stamped with the name of the newspaper, the date of the issue for which they are intended, and the number of the roto page, thus:

Washington Post Roto
Date: Sunday, June 26, 1939
Page . . . 3 Picture No . . . 4

Preparing the Roto Captions

With the page layout completed, the next step is to prepare the captions. As these are photographed by the engraver and included in the etching of the whole page, they must be set in the newspaper composing room and perfect proofs pulled on glazed or coated paper. These proofs of the cutlines are furnished the roto engraving plant along with the layout on Bristol board and the pictures.

Roto cutlines must be written to fit. There is nothing the engraver can do about it, if the lines furnished him will not go into the spaces indicated. That seems self-evident, yet the beginner usually overlooks the fact that it is he himself who must make sure that the cutlines are right for the spaces in the layout and that they have been proofread and corrected *and are perfect* before the final glazed proofs are pulled. Moreover, he should not overlook the fact that cutlines are set on the ad machines in the composing room and that, if they are not written to fit in the first place and have to be edited and reset, he may face many hours of delay before he obtains the proofs without which his page of pictures cannot be started on their way.

There is a very simple procedure for writing cutlines to fit the spaces set aside for them in the roto layout. Have set and keep on hand a good-sized block of type in the size and face regularly used for such cutlines. Before writing a cutline slip this under the space for that particular caption on the transparent sheet and count the number of words, estimating of course for a caption with enough white space all around. Then write this number of words or slightly less, but not more, for then you are sure to run into trouble. Anyone who has been writing roto captions for some time will learn to estimate them with a glance at the space on the layout, but until that time it is best to follow this method.

When the first proof of the cutlines is ready it should be carefully scanned for errors, since there will be no chance of correcting these after the copy is in the engraving plant. Then each cutline should be slipped under the transparent layout to make sure it fits the spot intended for it, for sometimes the wrong measure is used in setting. The editor either may have marked each cutline with the proper pica width or may have passed the trans-

parent layout to the composing room along with the cutlines, each numbered to correspond with its place in the dummy, and indicating the margin of white space he desires. A printer will then mark them up for the precise pica width needed in each case.

When the cutlines are corrected and in their final form, a half dozen proofs should be pulled on glazed paper. The Bristol board layout, the pictures, and these cutline proofs can then be forwarded to the engraving plant, together with any advertising copy which is to appear on the page. It is well to examine the glazed proofs, which are pulled on a hand press, to make sure they show no blur or "halo" of ink around the letters, which would mar the clear-cut typographic effect of the finished roto.

Ben Day Background for Roto Captions. If roto captions occupy much space on the page, they may to some extent detract from the unity of the layout. This can usually be overcome by having the engraver use a very light Ben Day pattern over the captions, giving the whole caption space a tone which makes it more harmonious with the rich effect of the pictures when reproduced by this method. All that is necessary is to mark the caption spaces on the Bristol board with a lightly penciled notation "Tone here" or mark the layout at the top "Tone over all caption spaces."

Three-dimensional type gives interest to two- or three-word page headings. Hugh Miller, picture editor of the Washington *Post,* has developed an interesting method of obtaining this dimensional effect without the use of the regular dimensional type faces. He has the head set in a sans-serif face of adequate size (24 point to 42 point), has a proof pulled on coated paper, then photographs this proof at an angle. The resulting photograph shows a "shadow" effect behind each letter, giving it depth. It may be used as dark lettering on a light background, or a positive may be obtained, showing white lettering on a dark background. This method should prove of interest when the three-dimensional types are not available.

Choice of Roto Inks

Most rotos which are not in full color use either brown or green ink. A good sepia tone undoubtedly looks richest and seems to bring out the quality of the gravure printing better than any other. Too much red, or henna, tone to the brown detracts

from its appearance. Picture editors should watch the tone and insist that the gravure plant keep it right.

Color in the Roto

Recent strides in color photography and color printing are bringing full-color reproduction into many roto sections throughout the country. Costs, both for good full-color photography and for color gravure work, are still holding many back, yet it seems likely that, as rotogravure sections are modernized and popularized, they will be able to sell enough full-color advertising to compensate for this increased expenditure.

There are some things to be said for, and some things to be said against, roto color pages. Often the subjects chosen do not merit such costly reproduction. Here again, the technicians seem to have outdistanced the editors, who so often forget that a picture, even if in color, must have *content* which is capable of holding the interest of the reader. A color photograph, no less than a black and white, should be strictly judged as a news feature subject and should be eliminated if its rating is too low. It seems very likely that the newspaper of the future will send its own cameramen out to get feature shots in full color for roto reproduction and will maintain a studio equipped for color photography. The New York *Daily News*, which maintains its own rotogravure plant, is also pioneering in this field of color feature photography, on which it uses one cameraman full time.

Full-color photographs can be transmitted by wirephoto as readily as black and whites. The color camera, it is recalled, breaks down the full-color image into three color-separation negatives, each of which can be transmitted over the wire. This possibility is not being taken advantage of at the present time, but, as the demand for good color features grows, it undoubtedly will be.

Rotogravure

Engraving and Printing. The tremendous gain in popularity of rotogravure has to no small extent been due to the technical advances that have been realized in this kind of reproduction. The criticism used to be made that whereas in halftone it was possible to do considerable retouching to improve copy, in roto work no correction of the original copy was possible. Small text

type, reproduced in roto in the form of cutlines or reading matter, was subject to deterioration which made it hard to read. Today all the criticisms have been met. Rotogravure is producing results in both black and white and full color that are infinitely superior to halftone. Whereas a halftone engraving deposits the ink on the paper in discontinuous patches or dots, rotogravure printing results in tone values practically as continuous as those of the original, while it closely approximates the original picture in richness and in delicacy of nuance.

Difference between Halftone and Rotogravure. In the halftone it is the surface of the cut which carries the ink. The top of the dots in the light portions and the face of the metal in the dark portions impart the image to the paper. It is a relief printing surface, as we have seen. In rotogravure the upper surface of the metal is clean of ink and imparts no impression to the paper. The ink is carried in tiny pockets that have been etched down into the metal. These pockets are deep and carry more ink for the full, rich tones of the picture and are extremely shallow for the lightest tones. This kind of etching is known as intaglio, and the full-toned quality of the printing is due to the ability of these wells or pockets to carry a larger supply of ink to the paper than can be conveyed on flat surfaces of metal. The various depths of the pockets create the varying tone values of the printed picture.

Etching Process. In the halftone process, it is recalled, the engraver rephotographed the original picture through a halftone screen which broke up its continuous tone. The resulting halftone negative was contact-printed onto a sheet of polished zinc or copper which had been given a coating of sensitizer. The black portions of the halftone negative let no light pass through to this sensitized surface of the metal, but the clear portions of the negative in a dot structure representing the tone values of the original, allowed the light to strike the coating, which through the action of light became insoluble in the developing solution. When the metal was placed in the developer all but these insoluble parts of the coating washed away. The metal plate was then etched in acid, and the protective coating resisted the acid. This acid etched away only the unprotected portions, leaving the printing surface in a dot structure representing the picture, standing up in relief.

In order to get an etched plate in which the printing portions are *not in relief* but are etched down into the plate, a process that is similar but somewhat the reverse of halftone is employed. It will be readily seen that if the printing on metal were done with a *positive* film instead of a negative, it would be the dark parts of this positive which carried the tone values of the original. These dark portions would allow no light to pass, and in the subsequent etching it is these which would be etched down into the plate, while the parts around them would be left. In other words, the etched-out pockets in the metal would carry the tone values and if filled with ink would print a reproduction of the picture. This in a general way is the theory of intaglio etching and rotogravure.

The original picture is photographed in a process camera having a reversing prism, so as to obtain a reversed negative, from which a *reversed positive* is obtained by contact printing. It will be readily evident that the positive film must be reversed so that the final picture printed from the metal plate may come right. Careful retouching is done on this positive film. There is always danger of the detail becoming a mass of solid tone in the darker portions of the picture, and so this detail, or difference in tone values in the shadows, is emphasized in retouching and all other values of the picture are heightened or softened with a view to obtaining the best results.

This positive film is continuous tone, for no screening has as yet taken place. It will not be printed directly onto the metal as in the halftone process but will be first printed onto a special carbon paper from which it can be transferred to the copper cylinder which takes the place of the flat halftone plate. The copper cylinder, after etching, can then be mounted in the rotary presses.

The Carbon Paper. The so-called carbon paper is a pigmented, gelatinized photographic paper which the engraving plant sensitizes to its own particular liking, some engravers using from 2 per cent to 4½ per cent plain bichromate solution, others preferring an ammonium bichromate solution. The carbon paper will be given two exposures, the first to impose upon it the pattern of the intaglio screen, and the second to receive the picture image from the positive film.

The Intaglio Screen. The halftone screen was a *negative screen*, having opaque lines on a clear background. Its ratio was 1 to 1:

that is, the width of the opaque rulings or lines was equal to the width of the clear apertures through which the light passed.

The intaglio screen is a *positive screen*, having clear rulings separating opaque black squares. Its ratio is 1 to 3; that is, the width of its lines is only a third of the width of its black squares. The positive screen is in reality a photographic dry plate on which an original screen with black lines has been copied and the tones reversed. It has 150 vertical and 150 horizontal rules to a square inch, crossing each other at right angles, so that *each square inch of the resulting etching will have* 22,500 *minute wells or cups to hold the ink.*

Exposing the Carbon Paper. When the carbon paper is exposed under this screen, the light passes through the clear lines of the screen and strikes the sensitized gelatin coating of the paper, which is thus rendered insoluble in water. The portions of the coating which are protected by the opaque squares of the screen are unaffected by the light.

The carbon paper now receives a second exposure, in which the positive film is printed upon it. The already exposed lines in the gelatin coating are intensified by the second exposure to light, and the squares between them, previously unexposed, now have the tones of the positive film impressed upon them. The action of light on the sensitized gelatin coating of the carbon paper is such that this coating becomes soluble or insoluble in water to the extent to which it has been exposed to light. In other words, what has been most exposed to light will be most insoluble, what has been least exposed will be least insoluble, and between these extremes the portions of the coating will be soluble in varying degrees, according to the amount of protection from light which the positive film accorded them. So, as the lines of the screen pattern received the greatest exposure to light, these will be the most insoluble portions of the coating, while the rest of it will vary in solubility in the same manner in which the tones of the picture image varied in strength.

The carbon paper after exposure is ready to be transferred to the metal cylinder. First let us see how this has been prepared.

The Copper Cylinder. The cylinder used today represents a great advance over that which used to be employed in rotogravure. Years ago this cylinder was of solid copper, and after each etching and printing it had to be scraped to remove the

etched surface and repolished so that new pictures could be etched upon it. This scraping and repolishing process required from 8 to 10 hours and added greatly to costs.

Some years ago Alco-Gravure patented what is known as the Ballard process for coating a steel cylinder with a thin copper shell. The cylinder most commonly used for rotogravure today is of solid steel weighing 2,000 lb., 76 in. long and 43 in. in circumference. It is coated with copper by being partly immersed in a trough of copper sulphate solution and revolved so that its surface continuously comes in contact with the solution, through which an electric current passes, depositing the copper on the cylinder. The chemistry of this process has been so carefully worked out that it is possible to calculate precisely the relations between the strength of the copper sulphate solution, the revolutions per hour of the cylinder, the voltage and amperage, to obtain a copper shell of the grain quality and thickness desired.

Instead of the 8 or 10 hours once required to prepare a cylinder for a new impression, it is now possible to strip off the copper, recoat and polish the cylinder in 3 hours, ready to be used again. The polishing of the cylinder is done mechanically. It is washed with chemicals and revolved in contact with various polishing stones, until its surface is bright and gleaming, without trace of a line, smudge, or scratch which might mar the picture impression.

Transferring the Image to the Cylinder. When fully polished, the cylinder is ready to receive the picture image from the carbon paper. This will not be the image of a single picture or of a group of pictures as in the case of the halftone metal plate, but will be the complete impression of a number of pages of a rotogravure section, arranged as they should be for the press run, when the cylinder later is put in place in a press unit, for the printing of the roto supplement.

The printed dry carbon tissue is attached to the clean polished copper cylinder in proper position, with its gelatin coating next to the copper. The cylinder is then wet, and the paper becomes adhesive. A rubber roller is lowered in contact with the paper-covered cylinder. As this turns, the rubber roller squeezes the water out, pressing the paper tight against the cylinder. The gelatin coating on the paper starts to swell from contact with

the water, and adheres more and more firmly to the copper as the backing or support paper is dried out by pressure.

Removing the Paper. When the gelatin has been firmly transferred to the copper, the cylinder is put into a tray of lukewarm water, which is gradually warmed up so that the paper backing begins to show little blisters, indicating that it is pulling away from the gelatin. When it has separated sufficiently, it is pulled off, leaving only the gelatin, which bears the picture image and screen, on the copper surface of the cylinder.

Meanwhile the water has washed away the gelatin which was not hardened by contact with light during the exposures of the carbon paper. The gelatin has been washed away in gradations according to the amount of hardening these exposures accomplished. Where it was hardest the water will have left the heaviest coating on the cylinder, where it was least hard, the water will have removed all but the thinnest coating.

Etching the Cylinder. The cylinder will now be immersed in six different acid baths. Where it is least protected the acid will eat deep holes into the copper surface, and where it is most protected the acid will eat only the shallowest holes. The hardness or softness of the gelatin, corresponding to the tones of the original picture, will therefore determine the varying depths of the wells or cups which the acid etches on the cylinder and which will carry the ink in the printing process later on. Heavy, strong acids will be used to etch the deep parts of the cylinder, and weak acids will be used for the shallow parts. The engraver must use his judgment in this and may cover portions of the etched surface to protect them from further etching when he thinks they have reached sufficient depth.

Taking a Proof. When etching is believed to have been completed, the cylinder will be mounted in a rotary proof press, where it is brought in contact with a rubber roller carrying the paper. At each revolution of the cylinder it is inked in an open trough of ink beneath it. Before the inked cylinder comes in contact with the paper, it rolls against a steel blade known as the "doctor" blade, the edge of which is pressed firmly against its surface. This doctor blade removes all ink from the surface of the cylinder except the ink which is in the holes or wells. As the cylinder comes in contact with the paper these transfer their ink to its surface, reproducing the picture. This proof

is studied for defects in the etching, and the plate is then subjected to one or more reetchings, until a similar proof shows it to be perfect. It is then ready for mounting on the press.

Color Rotogravure. So far we have discussed only rotogravure in one color, reproducing black-and-white photography. In color rotogravure work four separation negatives are made from the original color picture; these are used to produce positive separation films, and from each of these a color cylinder is etched: one cylinder to print red, another to print yellow, another for blue, and another for black. Very careful retouching is done on all the positive films, and tests are made by several methods to determine whether they will carry the right strengths of tone to the finished cylinders, so that when printed they will reproduce perfectly the blended coloring of the original.

After the cylinders are etched they are proofed by printing one color on top of the other, and the result is studied and compared with the original for defects. These determine the reetchings which the various plates must receive, strengthening a tone here and diminishing it there. A tone already etched may be diminished by polishing off a minute depth of the surface of the cylinder at that spot, thus making the holes which carry the ink more shallow in depth. The resulting slight unevenness of the surface does not affect the printing.

Rotary Presswork. The fully completed cylinders are mounted on the presses. In color work they must be carefully synchronized, so that the paper web, passing from one to another, is in the precise position necessary for the printing of one color to fall on top of the printing of the others, without the slightest variance. A few years ago it would have been impossible to print four colors on high-speed rotary presses. Today full-color rotogravure is printed at the rate of 60,000 to 65,000 an hour. This wonderful progress has been made possible by what is known as speed-dry ink fountains, an invention of Adolph Weiss which was perfected by Alco-Gravure.

Instead of the open ink trough we have just described in connection with the proving of the cylinder, these speed-dry ink fountains are airtight compartments placed below the cylinder in the presses, so that the cylinder, as it turns, is brought in contact with the ink, which is so fast-drying that if exposed to air for more than a few seconds it would evaporate before printing

could be accomplished. On these presses the doctor blade is so placed that it strikes the cylinder just before the cylinder rolls into contact with the paper, thus giving no opportunity for the ink to become too dry, since it is wiped from the surface at the last moment. It does dry on the paper practically instantaneously.

A. APPLICATION EXERCISES

1. Obtain two Sunday newspapers which have rotogravure sections. Compare, page by page, with respect to the contents as discussed in this chapter.

2. Using news of the last two weeks, write out suggestions for the same size rotogravure section as the poorer of the two examined, selecting possible pictures which conform with the principles discussed in the chapter but which differ materially from both sections examined.

3. On Bristol board, lay out the first two pages of your proposed section, writing page headings and captions and indicating how you would order "tone" for the captions to preserve an effect of page unity. Assume that no advertising is used on the first two pages.

4. On Bristol board, lay out a rotogravure page with the following elements: a 1-column, 11-in. vertical advertisement; an advertisement 3 columns wide, 6 in. deep; 1 horizontal picture 14⅝ in. wide, 5½ in. deep; one picture 3 columns wide, 3½ in. deep; one picture 4 columns wide, 5½ in. deep; and one picture 2 columns wide, 5½ in. deep; assume the printed dimensions of your page to be 14⅝ in. wide by 21 in. deep. Indicate hypothetical content for these pictures. Write a page heading and captions suitable for the contents and the space.

5. From the two rotogravure sections scrutinized, select the picture which you regard as having been made from the best original print with respect to reproducibility value and the picture which you regard as having been made from the poorest original print. Write out briefly the faults you find in the poorer of these two pictures and the virtues you find in the better of the two.

B. CHAPTER-ORGANIZING QUESTIONS

1. Explain why it is not practicable at present to publish a rotogravure page or section for every issue of the daily newspaper.

2. Explain by illustration what difference in content this restriction makes between rotogravure pictures and daily pictures.

3. On a rotogravure page appear these pictures: The President of the United States smiling, a baby smiling just after recovering from whooping cough, the head of a racehorse whinnying, the picture of a Chinese war refugee, and the picture of three minor Hollywood actresses in bathing suits at the beach. Another rotogravure page published in another paper on the same day carries these pictures: a 2-column, 20-in. picture of the cardiograph film showing the heartbeat of a man immediately before and after execution; a 5-column horizontal picture showing the prison doctor examin-

ing the cardiograph film; a 2-column picture of the operator of the electrocardiograph carrying the machine into the prison for the execution; a 1½-column close-up shot of the face of the executed man just before the execution; a 3-column picture of a model demonstrating the position of the executed man with the instrument strapped to his wrist immediately before the execution. Explain the relative merits of these two pages and justify your points.

4. A survey made by Dr. George Gallup showed that of a large number of persons personally interviewed, 76.4 per cent had read something on the rotogravure pages carrying display advertising of the paper to which they subscribed; only 37.7 per cent of the same persons had read anything on any of the non-rotogravure pages carrying display advertising of the same paper. Examine the news and feature pages which carry display advertising in the two newspapers selected for the exercises of this chapter. Be prepared to state whether you think it likely that approximately the same reader-interest results for these papers would be obtained as the results Dr. Gallup revealed. Justify your answer specifically.

5. To what should rotogravure pages appeal in addition to appealing to the eye? What similarity in content appeal have the Sunday roto page and the Sunday feature article?

6. What are the picture *principles* which the quoted advertisement from *Life* magazine sets forth as a picture-selecting formula?

7. The St. Louis *Post-Dispatch*, in a 20-page rotogravure section, devoted its first page to a sectional heading in red, white and black and to four large pictures, each of which constituted a "preview" of entire pages devoted to more detailed picture continuities of the same subjects on the inside pages. What do you think of this idea? What would you think of this blurb or cover-page idea if the section had contained only 4 or 8 pages? What specific disadvantages might have occurred had the cover jacket rotogravure page contained eight instead of four pictures?

8. Does the fact that original black-and-white prints cannot be retouched for rotogravure reproduction mean that no retouching at all can be done? Explain specifically.

9. Why must the all-insert layout be used in rotogravure?

10. Explain how a layout for a rotogravure page is made with Bristol board and tracing paper.

11. What care must be taken in spacing captions and in correcting proof of captions for rotogravure pages?

12. Explain how Ben Day films may be used to enhance rotogravure effects.

13. What care must a rotogravure editor take with respect to rotogravure inks?

14. Why do not all rotogravure sections use three or four colors?

15. Explain in detail the difference between a halftone plate and a rotogravure printing surface. How is the surface of a rotogravure cylinder after use prepared for a subsequent impression? How long does this take?

16. Explain how a picture for rotogravure is transferred to "carbon paper."

17. Explain how the carbon paper, after exposure, is transferred to the metal cylinders. How is the paper removed?

18. Explain in detail how an intaglio screen differs from a halftone screen.

19. How is the ink removed from all surfaces except the depressed cups on a rotogravure cylinder?

20. Explain in detail how four-color rotogravure effects are obtained?

21. Why must very rapid-drying ink be used in multiple color rotogravure?

Chapter XXI

COLOR IN THE NEWSPAPER; PREPARING COPY FOR THE COLOR ENGRAVER

PREVIEW QUERIES

The expression "yellow journalism" is said to have originated with the New York *World's* use in 1895 of saffron-yellow ink in tinting the dress of a comic-strip character called the Yellow Kid. But did any picture in color ever find its way onto a newspaper front page prior to the twentieth century?

With the technical improvements in newspaper production, why has not color photography come into general reportorial use?

Can any engraving process with reasonably satisfactory results and practicability of expense substitute for full-color plates in newspaper pictures?

What obstacles to color pictures in the newspaper does the roller type of stereotyping present? What are some newspapers doing to remove these obstacles?

By what colors may specific emotional tones be created in color pictures?

How has it been suggested that one color in combination with black may be used in illustrating editorial matter in the newspaper to attract advertisers to the use of color advertising?

How is electricity being experimented with to reduce the cost of color engraving?

Why do newspaper stereotypers often select a few mats out of the middle of a large bundle of them to use for color work?

WE are apt to think of color in the newspaper as particularly modern. As a matter of fact papers have been using some form of color printing off and on for 40 years—ever since Hearst's New York *American* splashed the "Star-spangled Banner" across its front page to dramatize the Spanish American War. In four decades great advances have been made. Photography, then an art still unsuited to newspaper needs, has grown into a powerful branch of journalism, with camera reporting of major news speeded over wires from every part of the world. Color photography has been born; engraving processes have forged

ahead, so that both by halftone and by intaglio etching the perfection of a full-color picture can be reproduced.

One might expect under the circumstances that any day full-color newsphotos would be brought to us in the daily, and perhaps they will. Technical obstacles are usually overcome once they are attacked by determined minds, and that which many label as "too costly, too slow, too impracticable" becomes the huge success of tomorrow, the accepted commonplace of the day after. It may be so with the newsphotos in color. The fact remains that the color work in the daily at present is not so far advanced as one might expect after 40 years.

Why Not Full-color Halftone?

The time required to do the etching of full-color halftone plates is one of the chief factors preventing the use of this form of engraving by the daily newspaper, which must, above all things, meet its deadlines. Full-color etching is a slow and delicate process, even in the hands of skilled operators. Costs of such reproduction are high, yet expense alone might not deter the newspapers from pioneering in this field. Each halftone reproduction of a single photograph in full color necessitates the etching of four cuts, instead of the one now used for black-and-white printing. Present-day newspaper cuts are made of zinc, but for best results in color work the more expensive copper should be employed. Most engraving plants would be obliged to add special high-salaried operatives for color process work. All these factors retard the day when news will be covered in color photo. But that day seems bound to arrive. Just as soon as methods are perfected for etching color plates at high speed without the need for special skill, we may expect newsphotos to bring us the very hues and colors of the happenings they record. Even then there will remain a variety of problems to be solved in other parts of the newspaper plant, to make full-color halftone printing effective. It is interesting to observe what some of these mechanical difficulties are.

Not only must four halftone cuts be made for the full color job (one for the black printing and one for each of the three primary colored inks), but also the page using these must be stereotyped and molded four times, to obtain the curved metal plates that fit on the cylinders of the newspaper press. Stereo-

type mats, made under roller pressure as they so often are today, show considerable shrinkage. This shrinkage is not entirely uniform, and might therefore throw the printing off register. The full significance of this can best be appreciated if we stop to review the facts about color engraving.

The engraver's camera for color process work is, we recall, equipped with a halftone screen that is circular so it can revolve in its frame, on which are marked the 360 deg. of the circumference. The lines of the halftone screen intersect each other at right angles. In making the negatives for each one of the colors the operator moves the screen a certain number of degrees, so that the dot pattern of the color plates will not coincide. Color filters are employed to obtain negatives of the three primary colors in the original, and a negative for a black printing, to reinforce the others, is also obtained by use of a filter according to the needs of the case. Usually the operator varies the screen angle 30 deg. between the black and red exposures, and 30 deg. between the exposures for red and for blue, while the yellow is separated from black and from red by 15 deg.

These negatives, printed on the metal and etched, result in halftone cuts with printing surfaces in *dot patterns which do not coincide.* If a full-color halftone print is greatly enlarged to magnify its surface, it will be seen that the dots of each color fall in comparatively clear spaces on the paper, except for the yellow, which can fall close to other colors without bad results. Such a magnified color print has a surface speckled with dots in the three primary colors and black. This mode of printing gives excellent reproduction of a color subject, but when the dots of one color fall on top of the dots of another the results are most unsatisfactory.

Uneven shrinkage of stereotype mats tends to destroy the careful adjustment of the four-color halftone printing, which the engraver had obtained by altering the angle of the screen in making the negatives. Even if the shrinkage of mats could be eliminated, the curved plates for the presses which are molded from the mats may vary slightly, unless unusual precautions are taken in casting them. There is likewise danger of these plates not being adjusted in perfect register on the press cylinders under rush conditions. As the paper web passes from one cylinder to another, each one of the four impressions or printings must fall

accurately into place, or the resulting color print will be "off register," jumbled and disappointing in effect.

Before full-color halftones of newsphotos are used in our daily papers, we must wait for: (1) Simplified and less costly engraving processes; (2) stereotyping methods better adapted to this kind of reproduction; (3) development of special pressroom techniques suited to fast color printing on newspaper presses.

Research, and actual progress, can be recorded in all these departments. Electric etching machines, already in use for black-and-white halftone, are being experimented with in color halftone work on copper and brass plates. Copper is superior to brass as well as to zinc. The etching machines cannot so far duplicate the work of the expert color engraver, who relies on judgment and experience in etching different parts of the metal to different depths according to the modulations of tone required. All the same, it seems that the electric etcher may succeed in obtaining very acceptable results.

When copper is used in place of zinc, some of the danger of uneven mat shrinkage is removed when the stereotyping stage is reached. Zinc, under variable conditions, may either shrink or expand. Variations of temperature and moisture content of the mat also affect results. Some newspapers are obliged to obtain a considerable mat shrinkage in order to conform to page size, and this is regulated by the moisture content of the mats. If, however, two mats vary slightly in moisture content, the shrinkage would be too uneven for satisfactory color work, even of the simpler sort to be described later in this chapter. Usually, by choosing for a color job a few mats out of the middle of a large bundle of them, it is possible to insure that the moisture content of all be alike, but this is a makeshift procedure which would not be dependable if color printing were to be the rule, rather than the exception, in the daily newspaper.

Newspapers printing a great deal of color are now using a stereotyping machine which applies *direct pressure with heat* to the mat, replacing the roller type of pressure. The heating unit bakes the mat onto the form at the same time that the pressure makes the impression, thus eliminating shrinkage. The roller type machine is modern and eliminates many of the inconveniences of the old steam-table method of stereotyping, but for making color mats it has not proved satisfactory because

it does permit mat shrinkage. The direct pressure machine with a heat unit is the latest answer to this vexing problem. When the roller machine is used a good result is sometimes obtained by transferring the page form and the mat to a steam table after the impression is made and baking the mat onto the page form, so as to prevent variation.

Still other devices are employed to obtain close register. The engraver often marks the original color copy with four small *X*'s which appear as type-high marks on each of the final color plates he engraves. These serve as a guide to the stereotyper in getting four mats in accurate register. These *X*'s must be chiseled off the plates that go on the presses, so that they will not appear in the printed work.

Each improvement in equipment or technique that is found not only improves the color printing now appearing in newspapers, but brings closer the day when news in color will be a reality.

Ben Day Color Work

In the meantime, Ben Day color work, in one, two, or three colors and black, is being widely used by newspapers, in feature pages and advertising as well as in the colored comics. The comics are a good illustration of the use of color with line engraving. The same process may be employed to add color to the halftone reproduction of a photograph, sometimes so successfully that the result is not easily distinguishable from the full-color halftone print. The line cut (as in the comics) provides the black outline into which tints are filled by successive printings with plates etched to carry colored inks to different portions of the picture.

The halftone cut of a black-and-white photo or wash drawing can likewise serve as the background or basic picture, on which tints are superimposed by printing with Ben Day color plates. These plates produce *solid areas of flat tone* rather than the blended gradations of color of the full-color process print. To understand Ben Day color work better we must again turn back to the engraving plant. The engraver, we know, makes a negative from the original picture and prints this negative (which is either in line or in halftone) onto a sheet of zinc which he has specially prepared to receive the impression.

The zinc was first carefully polished and then coated with a substance which was sensitive to light, so that the metal might receive the image from the negative much as a photographic paper would. This sensitive coating was flowed onto the plate, which was then inverted and whirled over heat to dry it evenly over the whole surface. The metal now has what the engraver calls a "cold top" and is ready to be exposed under the negative in a contact printing frame with powerful arc lights. Wherever the light, passing through the negative, strikes the cold top, this becomes insoluble in developer, but where it is protected by the opaque parts of the negative it remains soluble and washes away when the print on metal is developed. The cold top that remains is an exact print of the image.

Ben Day with Line Engraving. If the original for the Ben Day color job was a line drawing, the engraver makes one line cut in the regular way, to be used for the printing in black. Next, he reprints the negative on zinc for each of the color plates, but after developing the image he uses a weak acid solution to oxidize faintly the unprotected parts of the metal. Then he applies a "cold top remover" which destroys the printed outline but leaves the trace of the image produced by the oxidation, which serves as his guide in printing Ben Day pattern on the plate where color is desired. The metal plate, with its oxidized image, is known to the engraver as "a stained print."

In laying the Ben Day, the operator follows the indications furnished him by the artist with the original drawing. A sheet of transparent paper was attached to the back of the original along the upper edge and folded down over the face of the picture. On this transparent sheet the artist painted the colors he wished to have added by means of the Ben Day. The Ben Day screen, as we have already learned, is a plate of hard, clear gelatin on which a pattern has been impressed, so that the surface is a fine printing relief surface, resembling somewhat the relief surface of a halftone cut. Some Ben Day screens exactly duplicate halftone dot patterns, and they are available in various dot sizes or strengths.

The engraver prepares the stained print to receive the Ben Day by first painting on its surface with a water-color paint called Gamboge, with which he covers up or "masks" all parts

of the picture on the metal which are not to receive the Ben Day pattern. Thus, if he were working on a stained print representing a picture of a girl and had directions to lay Ben Day for the printing of flesh tints on face, arms, and legs, he would first use Gamboge for "staging" or masking all but the face, arms, and legs in the picture. Next, he inks the Ben Day screen with acid-resistant ink, capable of producing a new "top" on the metal. He then lays the screen face down on the metal and rubs it to make it impart its inky pattern to the metal. He may apply a faint Ben Day dot pattern to one area and a stronger dot pattern to another, where a strong tone is desired. Finally, where the strongest tone is desired, he paints over the part on the metal (which of course was not masked out with Gamboge) with a solid coating of asphaltum or acid-resistant ink. The purpose of the Gamboge was merely to prevent the Ben Day screen from producing a top on the metal where one was not wanted. In printing with the screen there is bound to be some "run-over" of the pattern, but this falls on the Gamboge, which is soluble in water and can therefore be washed away very easily. It is in this fashion that the engraver is able to lay Ben Day neatly in the exact spots where it is needed.

When the Ben Day printing is accomplished, and the Gamboge, together with the excess Ben Day pattern, has been washed off the metal, the plate is ready to be etched in the usual way, and the etching acid attacks it everywhere except where it is protected by its new ink top. The resulting color plate shows a printing surface consisting of large and small dots and solid areas. These will carry the colored ink to the paper in three different tones. Such a plate, for instance, if inked with green, would print faint green dots, heavy green dots, and solid masses of green. One such color plate, used with a line cut for the black printing of the outline, might give an attractive illustration for an advertisement or feature story. Three Ben Day color plates, printing with inks in the primary colors, would give a pleasingly nuanced result.

Ben Day Color with Halftone. The process just described may be similarly carried out with an original which is a photograph or a wash drawing. For such a "continuous tone" picture, the engraver makes a halftone negative. He prints this negative on zinc and finishes one halftone cut in the regular way, to

be used for the black printing. Now he reprints the negative on the metal, once for each of the color plates required. The zinc, just as for the printing of the line negative, has received a light-sensitive coating or cold top. After the image has been printed and developed on the metal, this top remains in dot formation on the surface.

When this stage is reached, the engraver uses a weak acid on the metal print, which *faintly oxidizes all the unexposed portions* of the surface between and surrounding the dots. With a cold top remover he now destroys the cold top print, or dots, on the metal. There remains, however, a faint image of the picture, caused by the oxidation. This is his "stained print," which guides him in laying the Ben Day.

The original photograph came to the engraver with a transparent overlay on which the desired colors were indicated. He now refers to this, and carries out the Gamboge staging, or masking of the metal with water-color paint wherever Ben Day is *not to appear*. When this is done, he prints onto the metal the fine or heavy Ben Day dot pattern as he thinks necessary to produce the required tones. He may paint over a whole area with asphaltum where the strongest tone value is needed.

In making each one of the color plates, he of course applies the Ben Day differently, in accordance with the amount of that particular color that must show in the final printing of the picture. A single color plate may be used to supplement a black halftone printing. On the other hand, the nearest approach to the effect of a full-color halftone process job may be realized by the use of a halftone cut for the black printing with *three* Ben Day plates, each in *three* grades of tone value, for the printings with inks in the three primary colors.

How the Copy Is Prepared

Reference has been made to the way in which the original copy is prepared for Ben Day color work. Now that the engraver's work is understood, let us look at the art-department job in a little more detail.

The artist is preparing directions or copy which must serve as an absolute guide to the operator in laying the Ben Day on the metal. Ben Day pattern, we have seen, can be "strong" or "weak" in different areas of the picture, but it cannot *shade off*

from one tone into another. In preparing the color original, this is something to be kept in mind.

Over the black-and-white photograph, wash drawing, or line drawing, as the case may be, the artist places an overlay of heavy transparent paper. This is gummed to the back of the picture along the upper edge and folded down over the face. On this transparent sheet, in either water color or colored crayon, he paints in the tones he wishes the engraver to provide by means of the Ben Day. Thus, he may want only one color plate for use with the black plate. In this case he will paint in *three tones of green*, to be followed in the Ben Day by the light dot, the heavy dot, and the solid surface. Though he uses the three tones, he does not shade one into the other gradually, but instead he *definitely indicates in his painting where one tint ends and another begins.* He washes in a pale green, then mixes a deeper green and washes that into another portion of the picture; finally he mixes his darkest green and washes that into appropriate areas.

If the artist is experienced in color work, he will be able to prepare a single overlay even when three color plates are to be made. On this single overlay he will give the Ben Day operator clear indications of what is required, despite the fact that three colors, in three strengths apiece, are used. Where a tint of one primary color is washed over a tint of another, the engraver will be able to judge how much tone he must put into each color plate to achieve the combination of color when the picture is printed, with inks of primary tones superimposed. If printing is to be effected with black and three colored inks, all in *secondary* colors, then the artist must *not* wash one color over another, but must mark the separations clearly. The overlay, then, must show clearly where variations of tone start and stop, but can usually combine all three colors on one sheet. Water color is better than crayon for the work, provided a good-quality transparent paper is used which will not buckle.

Selection of Ink for Color Printing

Color and depth of tone of the inks used in Ben Day printing will naturally have much to do with the results. In four-color printing with Ben Day, inks in the primary colors—blue, red, and yellow—may be used with black. Where only one color other than black is employed, the ink may represent a com-

bination of the primary tints. For instance, an orange ink for the color printing will give in combination with the black an effect like a tinted wood cut.

To quote one modern designer, Willard Grayson Smythe, writing in *The Printing Art Quarterly:*

> Fine results may be obtained by using color to create a definite emotion. We arrive at these emotions by relating them to the experiences in nature of which we are a part. For example: Heat, fire, blood, and excitement in nature are experienced in red; it is a strong, vital color. Yellow is the color of cheer, life, and sunshine; it has a revivifying effect. Blue is significant of purity, truth, coldness, and formality; it is a color of distance. Binary colors, each formed by two primaries, also have meaning. Orange, made of yellow and red, is symbolic of light and heat. Violet, composed of red and blue, is symbolic of heat and cold which results in ashes; it is a color of mystery and gloom. Green, composed of yellow and blue, is symbolic of light and coolness."

The noted newspaper designer Gilbert P. Farrar, in an article which appeared in *Editor and Publisher,* advised newspapers to go out after increased advertising revenues by printing color and soliciting color advertising. He believes the best way to begin is by printing in color some daily feature which will attract the attention of the local department stores, such as the illustration for a daily pattern on the woman's page, using just one color in combination with black, but *changing the color every day.* He says:

> Use colors of high tone value but of high brilliancy also. What you want when you use just one color for an entire picture is a brilliant spot of color that will startle the reader. Have a cycle of about five good colors. A good cycle is: Fiery Red, Persian Orange, Alice Blue, French Green, Lavender, and Tan.

Some of the mechanical problems we described in connection with halftone color printing for the newspaper exist also in the simpler Ben Day color printing, though not of course to the same degree. Reproduction in color naturally fails to please if it is greatly off register. Stereotyping and pressroom difficulties discourage some from attempting more than one color added to the black printing. Others have been entirely successful in doing four-color printing. Here, too, certain modifications may meet the particular newspaper's requirements. The most

difficult four-color Ben Day printing is that in which one primary color prints over another primary color, to obtain a secondary color. Thus, blue ink printed on top of yellow will give green, but very accurate register must be obtained where secondary tones are built up in this way. It is not always possible to guarantee the exact tones of the final colors, which may be affected by various factors—the inks used, the speed of the presses, etc.

Instead of four-color printing with primary inks, some newspapers use four-color printing with inks in secondary colors, but with *no overlapping of the inks.* This method is very satisfactory for color advertising in the daily. A department store may send along with its ad copy samples of the materials of which the advertised dresses or curtains or upholstery are made. There is no attempt to produce these tones by overlaying the inks, but instead inks are mixed to exactly match the colors of the materials supplied and the color Ben Day plates print contiguous areas of the surface of the picture. With a halftone cut for the basic black printing, amazingly fine results are procurable by this method. Gowns, rugs, house furnishings, and merchandise of many kinds can be illustrated in color advertising which identically reproduces their hues. Such color work is not too difficult for the average newspaper to attempt and will be a source of satisfaction to merchants and of revenue to the paper in the end.

To sum up what we have said concerning the Ben Day color process for newspapers, its advantages are: (1) It is easier and cheaper to carry out in the engraving plant; (2) the plates can be etched on zinc like other newspaper cuts, rather than on the more expensive copper; (3) though perfect register is always a little difficult to obtain, something close to it is possible with study of the special problems, and slight variations will not mar the effect as they might that of full-color halftone, for the Ben Day tones are large areas not dependent for their effect on each dot falling into a mathematically exact position in relation to the rest.

Newspapers should do more color printing for a number of reasons, perhaps. To begin with, it is a simple means of "pepping up" the paper and giving it a new dress. It is a great possible source of advertising revenue. Lastly, if color in newsphotos

is ever to arrive, as it doubtless will, color printing in the simpler Ben Day now will do much to smooth out the existing technical and mechanical difficulties and prepare the path of progress.

A. APPLICATION EXERCISES

1. Get a current newspaper comic supplement in color. Explain how many successive printings were necessary to produce this colored supplement as it appears.

2. Explain why some of the colored areas in these comic pictures appear in dot formation, whereas others are solid colors.

3. By reference to a particular picture in this comic supplement, explain how the dot formation areas differ from the dot formation areas in a full-color process halftone.

4. Select a photograph. Assume that you wish this photograph reproduced in a newspaper with only one color plate besides a black plate. With the use of transparent paper, indicate how you would prepare this photograph for the engraver to make one black and one Ben Day color plate, the Ben Day plate to show three different shades.

5. Get if possible a picture supplement of a metropolitan paper which contains full-color plate reproductions of color photographs. Write out a detailed comparison of the color work in any one of these full-color plate pictures, comparing it with a Ben Day effect in your comic supplement, to show how the processes differ.

B. CHAPTER-ORGANIZING QUESTIONS

1. Explain in detail why it takes so much time at present to prepare the full-color halftone plate for reproducing one picture.

2. Why is copper a more satisfactory metal than zinc for color plates? What drawback, on the other hand, has copper for newspaper use?

3. What increased labor in the stereotyping room does full-color printing necessitate?

4. Why is the number of plates required for a full-color reproduction four?

5. In using several different plates for one picture as color reproduction requires, what would result if the dot pattern of the various plates coincided? How is this guarded against?

6. What complication does mat shrinkage present in a newspaper's use of color reproductions? What is done to lessen this difficulty?

7. What devices are used to decrease the difficulty of imperfect register?

8. How does a Ben Day screen differ from a halftone screen?

9. Explain in detail what is meant by a "cold top"?

10. What is meant by a "stained print" in the Ben Day process, and for what purpose is it used? What is Gamboge and how is it used?

11. How may one Ben Day processed plate give a final printing effect of three gradations of color?

12. How does Ben Day use with a halftone differ from Ben Day use with a line-drawing cut?

13. If three Ben Day plates inked with primary colors are used with a fourth black plate to produce a nuanced result, why would they cost the paper *less* than four full-color plates?

14. Explain how a photograph is prepared for color reproduction so the engraver will know exactly where the various kinds of Ben Day screens are to be used?

15. Suppose in water coloring a layover on a print for Ben Day work, the picture editor or artist shades one tone into another gradually. Why cannot the engraver follow this?

16. What emotional tone is violet said to create in a picture? Orange? On what reasoning is this based?

17. Why do you suppose Gilbert T. Farrar recommends using one color only for a daily illustration to attract advertisers—but changing the color every day?

18. What kind of colors does he recommend?

19. How may department store advertising in color effectively copy colored fabrics to be advertised?

20. What mechanical contribution may the use of Ben Day color work make to an ultimate newspaper use of full-color printing?

Chapter XXII

PHOTOGRAPHY AND THE LAW; LIBEL; ETHICS; COPYRIGHTING

PREVIEW QUERIES

Charles A. Dana once said, "What the good Lord permitted to happen, I'm not too proud to print." Suppose a law-abiding citizen is unjustly accused of a crime and arrested for investigation. The law coincides with Mr. Dana's dictum in permitting a paper to publish this man's picture, provided its caption is correct. What about human nature raises a question of ethics in such publication?

Is a newspaper photographer always at liberty to reject a picture possibility because of ethical scruples?

What constitutional guaranty may become involved in any sweeping proscription of picture reporting?

What difference in legal point of view exists between a photograph published for advertising purposes and the same photograph published to report current news?

In what circumstances is it possible for a true candid picture to misrepresent a person to that person's injury?

In what circumstances might a photograph of a corpse be in execrable taste if displayed in a private drawing room and yet be in good taste and its publication ethical in a newspaper?

What news photographs do you recall having seen in the last year which seem to you definitely unethical in publication? Can you suggest a sound law, which you think ought to be passed, which would have prevented the publication of any or all of them?

A reputable banker is photographed at lunch in a public restaurant with a man who some weeks later is convicted of selling fraudulent stock. Assuming that the picture is bona fide but the meeting at lunch was casual, is it ethical to publish this picture at the time of the swindler's conviction? Is it permitted by law?

DIATRIBES against unethical news photographers invariably get attention, as do suggestions that their activities must be legally curbed. The remarkable fact is that we see so broad a camera coverage of news with so little that in any way offends. The reasons are evident to those who have day-to-day contacts with the cameramen. Taken as a class, like the men in any profession, they have character. Work that requires technical

skill, intelligence, and a sense of artistic values breeds self-respect. Self-respecting people respect others. In moments of stress and great emergency they may do their utmost to carry out the commands of an executive, but they do not trample on the rights of others.

Criticism undoubtedly results largely from the fact that the field of the news camera is expanding rapidly and that all conceivable legal and ethical problems have not yet been solved. A cameraman of long experience on a metropolitan paper said recently:

> I have always felt it was committing an injury against the individual charged with a felony to publish his photograph before he had been convicted. Of course I have taken many such pictures. Legally they are permissible, so long as the arrest or the indictment are matters of record. But I have often wondered how I should feel if I myself were innocently accused of a crime and had to see my face spread all over the newspapers. Even if I was acquitted later, most people would only remember that they had seen my face in print in connection with a crime. For many pay more attention to pictures than they do to words.

It is obvious from this one example that questions of ethics and of law are closely interrelated and that the photographer, acting under orders, cannot always be responsible for living up to the highest standards of conduct in circumstances where no legislation exists. The passing of laws is made difficult by the determination of the press to guard its freedom, guaranteed by the Constitution, yet if publication is deemed injurious to citizens and prejudicial to justice, it can and should be restricted.

Just how much harm publication of the pictures of accused persons does must therefore be decided by the lawmakers of the future. Persons under arrest and in jail on criminal charges frequently do object to being photographed. Sometimes they welcome photographers. The lower the grade of the individual, the more apt he is to relish camera notoriety. The choice, however, is seldom his. In cities where law-enforcement officials have reason to keep in the good graces of the press, prisoners are usually brought out of their cells and obliged to face a camera barrage, whether they wish it or not. It would be unfair to say that this is a positive evil, though many severe abuses have been observed. Yet sometimes newsphotos have created a public sentiment in favor of the innocently accused, which made

acquittal more certain. The problem remains one demanding proper consideration.

Of course when the case reaches the trial stage the judge may intervene to bar photographs. Here again it is difficult to say what is right and what is wrong. Many feel that there is as much reason to cover a big court case pictorially as by the printed word. Certainly to do so conveys the event to the mind of the reader far more graphically than words can do.

At present, photographers are barred from all federal courts and may not even make pictures on the steps or outside property of the court. Elsewhere their presence is at the judge's discretion. Practice is gradually changing, partly in recognition of the fact that the public demands its news in picture form, and partly because modern photo equipment permits pictures to be made without disturbing the decorum of the courtroom, as in the days when flash powder and tripod had to be used. The photographer who makes pictures despite a judge's adverse ruling is in contempt of court and may be subjected to fine or imprisonment. When such a picture is published, the newspaper executives are often held equally responsible under the law. Most judges are inclined to regard camera reporting as legitimate and to allow the news photographers to operate as freely as reporters may.

Photos That Cartoon or Misrepresent the Subject

One of the ethical charges the critics make concerns photos that cartoon or misrepresent the subject. It is possible to photograph a person at an angle or to catch him in an expression or mood which is unfavorable to his best interests when the likeness appears in print.

Franklin D. Roosevelt, during his second Presidential campaign, was much annoyed by the publication of a candid shot which showed him with his hand to his brow in an attitude of dejection. Undoubtedly the picture revealed only a passing gesture of weariness, but there was some danger that to the public it might carry the thought that he anticipated defeat. It can be said in defense of such a shot that it is no different from the cartoonist's unfavorable presentation of the subject. Yet a photograph, simply because it is a photograph, does carry its message more forcefully to the mind.

When the subject of a photograph is a political figure, it would seem he cannot defend himself against photos that cartoon or even those that "lie." When the subject happens to be a private individual, the case is altered. If the published photograph is one which tends to hold him up to scorn or ridicule and thus injure him in his social or business relations, he may have ground for a civil libel suit against the newspaper.

Newsphotos That Horrify

Only a few years ago newspaper ethics forbade the use of photos of corpses, whether accident or murder victims. Public feeling and newspaper practice in this respect have changed. There is almost no horror which is excluded from picture reporting today. We are shown photographs of lynchings, of auto accidents in which people died, of the charred victims of air crashes, and of the mangled remains of soldiers and civilians massacred in foreign wars. We no longer insist on delicate refinement in the representation of actualities, and that is a decided gain, provided it spurs us to face reality and find cures for the worst of our modern plagues.

Where offensive pictures do not serve any constructively humane purpose, they should be rejected. There has been a tendency in some of the picture media to invade the hospital operating room and the realm of the vivisectionist, in search of a wider range of subjects which might pander to sadistic appetites. The border line between science and sensationalism should be very sharply drawn.

Minor Ethical Offenses

Compared with these larger ethical problems, some of the lesser criticisms leveled against news photographers seem more laughable than serious. The cameraman who planted a smiling lady pygmy on mighty J. P. Morgan's knee during a Senate inquiry and then proceeded to catch the banker in a "candid" pose, was guilty of *lèse majesté*, perhaps. It is even possible he subjected the financier to some humiliation, but the injury was not severe.

Photographers who have pursued and photographed the Lindberghs in all the happy and tragic events of their lives were legally within their rights, though ethically, under the spur of

competition, they may have gone too far. Yet it is hard to say where the line could be drawn. Even those who are fond of saying there "should be a law against it" would have difficulty framing such a law.

Rights of Privacy

As a matter of fact the *strictly private citizen* is in the process of gaining some protection under the statutes, in his right not to have his photograph published. Just how far such protection now extends is doubtful. For advertising purposes his face may not be used without his permission; but much greater leeway is given the news columns than the advertisers.

Theoretically, a man owns his own face and all rights of reproduction thereof. In point of fact, this property right runs somewhat counter to the Constitutional right of the newspaper to "publish anything which commits no offense against public morals or private reputation." When the Constitution was framed news photography did not exist; yet the best thought on the subject seems to be that "freedom of the press" necessarily embraces normal camera reporting and that persons included in such pictures have no redress.

Many newsphotos bear within themselves the evidence that the subjects represented posed willingly, and therefore there can be no danger that the publication "invaded the rights of privacy." Such a danger sometimes may exist where a picture from the newspaper morgue or from some other source is used with a story reciting facts which are discreditable. Thus, if a story of Kidnaper John Doe were illustrated by a group shot of the criminal with some of his old school friends, these persons might have grounds for a civil suit against the newspaper, for having thus brought them into social discredit. It is doubtful whether they could prove actual injury; yet here is a twist of the law that the picture editor should bear in mind.

Newsphotos versus Commercial Portraits

Legally there is a difference in status between the picture made by the news cameraman and the portrait made by a commercial studio. If a citizen, whether in public or private life, pays a commercial photographer to make his portrait, he has a right to demand that it shall not be used for publication and,

in fact, that no copies be delivered to anyone other than himself. The negative belongs to the photographer, unless otherwise contracted, but prints from the negative are the property of the sitter.

Commercial photographers very often request their clients to sign a form of release permitting such photographs to be furnished to the newspapers and to be used for publication. Such releases are readily granted in many instances. A woman may be told that her picture has been requested by the local society editor. If a general release is signed, the commercial studio may sell prints to the newspapers at any time. Years afterward, if the sitter comes into the news, the negative may be withdrawn from the files, printed, and sold.

It is evident that the citizen's right to keep out of print the portrait for which he paid is based on his purchase of it. If he did not buy it, but allowed the photographer to take it and accepted some of the prints as a gift, he has not the same proprietary claim to it. It then becomes subject to much the same conditions as the news photograph, even when made by a commercial studio.

Even news photographers, when they pose subjects in the newspaper studio, usually get a written release, as a guaranty against any attempted legal action, though it is doubtful that these are necessary, since no payment is made by the sitter. Strictly speaking, some of these pictures, made for feature purposes, are not *news* coverage, and therefore the written release is an added precaution it is well to have.

Releases are always obtained when professional models are used. Sometimes the situations in which these models are posed are such that, but for the fact that they had signed such a release covering all uses of their picture, they might later claim injury. Take for example the case of the beautiful child model who poses in rags as the pitiful abandoned orphan. Newspapers, it is true, make little or no use of models for such purposes, but they do publish such pictures when furnished them by the charitable institutions, which habitually employ models in their funding campaigns. The newspaper, on the other hand, uses fashion models frequently. All such photographs should be covered by written releases, which, in the case of minors, must be signed by the parent or guardian.

In summary, we see, then, that a *growth of ethical feeling* is resulting in keeping some pictures out of print and may result in barring still greater numbers, while *statutes* to protect the individual in his right to privacy are responsible for stopping the publication of others. Ethics change with every age, and the picture editor must have his ear to the ground for the rumblings of public sentiment, if he does not wish to be too bitterly criticized. Women who wore long-skirted bathing suits and black cotton stockings into the ocean in the gay nineties probably would have regarded the candid camera snapshot as a piece of impertinent vulgarity. The bare-legged modern bathing girl sees no harm in being photographed, nor does the society matron nor the church worker nor the businessman, hobo, slum mother, or scientist in his laboratory. Millions of people are so picture-minded today that it would never occur to them to refuse to face a camera, unless they happened to be caught in very compromising surroundings. Thus the cameraman has his task made easy. With a minimum of diplomacy he can get anything that he wants.

Pictures That Are Faked

The charge that newsphotos are "faked" is occasionally heard and now and then is justified—*rarely*, in our time. The truth is that real photography has driven the fakes out of the field so completely that current examples would be difficult to find (Fig. 43). Also, few of the critics would recognize a fake were they to see one, and if it occurred in a reputable newspaper—as now and then one does—they would probably not even sniff at it. When the fake is accompanied by a certain amount of sensationalism, then everybody is up in arms.

Fakes usually belong to one of three classifications. They are (1) developed from something which is not a photograph; (2) posed by models to represent an actual news event; (3) made up of parts of several photographs, in what is known as a "composograph."

Famous World War Fake. In the first group belonged many "photographs" made during the World War and at least one which caused some international hard feelings. Camera coverage of news had not reached its present high state of efficiency in that era. One of the large news-gathering agencies employed

a staff of artists in Paris to turn out charcoal drawings, from imagination and from word-of-mouth descriptions, of "actual scenes in the fighting zone." When the flash came that a big battle was in progress, these wizards soon had the whole realistic picture on paper, showing the American, British, or French

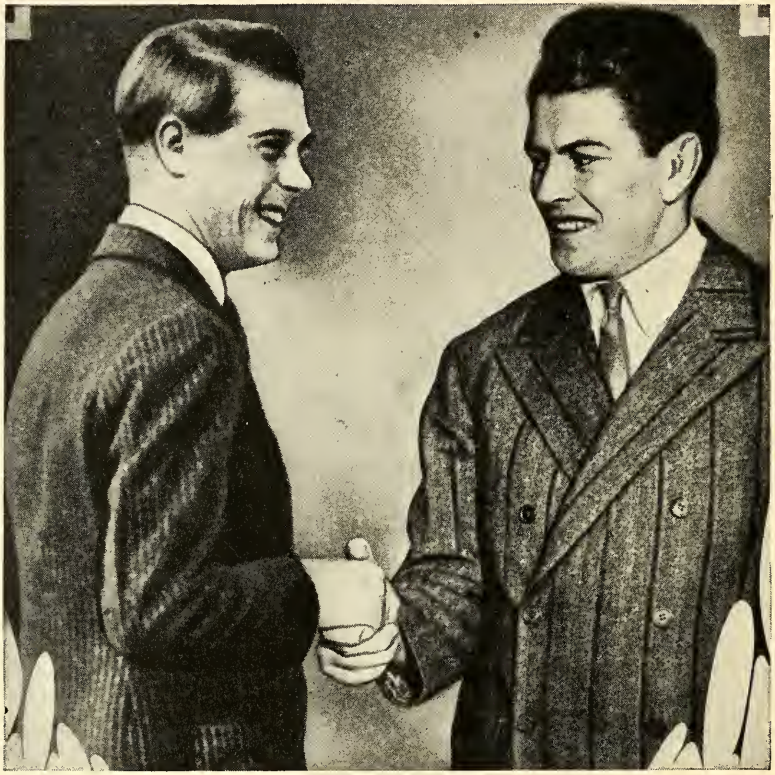


FIG. 43.—Composites are rare in our day. This antiquated picture of the Duke of Windsor when he was still Prince of Wales, "shaking hands" with Gene Tunney, was obtained by ingeniously combining separate photos of each.

troops "going over the top." The charcoal version was then airbrushed to soften and disguise the artist's strokes, photographed, retouched, photographed again. The final print looked as real as any our intrepid war photographers turn out today.

Such pictures were printed by practically all newspapers in all parts of the world. Editors, like the readers themselves,

accepted them on their face value. One of these faked front-line views caused a diplomatic stir and is said to have produced harsh exchanges among certain high officials at Versailles. As originally executed in Paris, the drawing had portrayed the "Americans winning the victory in the Argonne." The print, after it reached this country, was recaptioned for each state to which it was distributed, so that it purported to show the boys of that particular state winning the victory. That was all very well, but later the picture was retouched to show "the Australian boys winning the victory of the Argonne," "the Canadian boys," and the "New Zealanders." Editors in all these lands likewise accepted it and published it on faith, so it is not surprising that even the diplomats were baffled when the true version of history was presented to them.

It seems an entirely safe assumption that charcoal drawings of foreign war scenes are not being metamorphosed into "photographs" and circulated through regular news channels today. Even as faked propaganda, they would be quickly exposed, for the news cameramen of today are ready to risk their lives to give the world true pictures of what is going on.

The second type of fake—the picture posed by models to represent an actual news event—is becoming equally rare. It has occasionally been used to show an electrocution from which the news cameras were barred. Cutlines veiled its fake properties as subtly as do radio announcements of "recorded" programs. It has offended good taste but has probably done no harm, except to the paper. From the standpoint of those who oppose capital punishment it may even have done some good. Of course in speaking of posed pictures which are fakes, we are referring only to those which endeavor to ape a news event. In the vast majority of cases where models are employed there is no ethical problem involved.

The third type of fake, the real "composograph," may still occasionally be found in newspapers, but only by those whose eyes are sharp. It is a photo built up out of several photos, but it differs from the photomontage in that it seeks to conceal the telltale evidence that it is not a single shot. It may show Hitler and Mussolini clasping hands, or famous athletes or royal personages in conclave, or the flight of an airplane over some familiar skyline. When the event is one which has great popular interest

and no pictures are obtainable, editors sometimes seek to represent the news by this little trick of cutting out and pasting down to get a scene close to the actual one. Usually nothing is said in the cutline to indicate that such a picture is a composograph, and the reader of the very conservative newspaper might be greatly shocked if he knew it was. Yet the purpose is not so much to fool him as to give him what he has come to desire: the news in pictorial form.

To be sure, the inventor of these composographs needs to watch himself against slips. Airplanes (in newspapers) have been seen to fly over mountain tops with their propellers visible. On the other hand, queens and duchesses have been beheaded and their heads set nimbly onto bodies more fashionably or more seasonably garbed than they—and no complaint has ever yet been made. Famed personages have given each other a hearty handclasp with hands which never belonged to themselves, and no hard feelings have resulted. Ladies have been made a present of a better set of legs, gentlemen have had their straw hats chopped off and replaced with fedoras. If such a composograph *misrepresents the news* it is a dangerous weapon. Such abuses, however, would be impossible to point to and probably do not exist.

Libel in Newsphotos

Many libel suits brought against newspapers are based on pictures or cutlines. Carelessness in identification of photographs and carelessness in wording captions referring to criminal charges frequently result in the payment of damages. It is interesting to examine some of the ways in which wrong identification occurs. Suppose that bank teller John K. Jones has been arrested on a charge of embezzlement. The picture editor asks the newspaper morgue if it has a photo of Mr. Jones on file, and shortly such a picture is delivered to his desk. It bears on its reverse side the identification "John Jones, bank clerk." So the editor has a cut made and the next edition carries it. It turns out, however, that there are two Mr. John Joneses employed by banks in the community, and the face which appeared in the paper was the wrong one. The honest Mr. Jones has been libeled and has a suit against the paper.

Middle initials are often very significant in photo identification and should never be disregarded. Even when the name corre-

sponds in every respect with the one sought, the photo should be used only if it can be *positively identified.* It may have had the wrong name written on it at the time of filing. Usually someone in the newspaper office or vicinity can be found who knows the person and can identify the picture. Failing that, it had better not be used in connection with a story containing libelous possibilities.

Any picture of an innocent person, used with a story of crime, constitutes a libel, even though the name under the picture is that of the criminal to whom the story has reference and not that of the person represented in the photograph. Thus if the picture labeled "John K. Jones, Arrested on Embezzlement Charge" turns out to be a photo of William Smith, the latter has been libeled quite as much as if the embezzler's name had resembled his.

Mistakes in identification sometimes occur when a local commercial studio is queried for such a portrait. Usually the studio has its negatives filed numerically and refers to a card file for the number of the negative of John K. Jones. A mistake in jotting down the number or in withdrawing the negative from the file might result in a picture being printed and marked "John K. Jones," when in reality it was the photo of William Smith. Of course any reputable photographer is doubly careful to check such a photograph if he is warned by the newspaper that it is to be used with a story of a crime. Even so, it will be well for the picture editor to attempt further identification of such a photograph. The newspaper photographers themselves, if withdrawing an old negative from the files, may make a similar error, and therefore the print should be checked back with the files before use.

If an old *group picture* is used in connection with a crime story, new dangers arise. Are *all* the persons in the picture charged with crime? If not, overlines and underlines should make this very clear, for if five of them are gangsters arrested for a kidnaping, and the sixth is an honest boy who went to school with them, he will have been criminally libeled by a cutline referring to "Kidnapers Who Were Caught." In fact, it will be well in using such a picture, to take him out of it, or have the retoucher, blur his face beyond recognition, for he can charge that his reputation has been damaged by such publication. If he cannot be

cropped or painted out, give him a beard, eyeglasses and a moustache: in other words, make him unrecognizable and omit his name from the caption.

Sometimes relatives of persons accused of a crime have charged they had been libeled by the publication of pictures in which they were shown with the one accused. It is doubtful if any court would uphold this claim, though there is the possibility that such a picture would be considered as a civil invasion of the right of privacy, in special instances.

On the whole, then, the picture editor must see to it that only fully identified pictures of persons charged with crime are published with stories concerning felonies.

His second responsibility is to make sure that there is no libel in the cutlines. This includes *overlines* and *underlines.* A crime story written by a veteran reporter may be carefully checked on the copy desk and the headlines written by men of experience in evading libel's pitfalls. Then—it frequently has occurred—the cutlines that accompany the picture are hastily dashed off by a cub doing his turn at the art desk and rushed straight to the composing room. If such cutlines impute guilt and the man or woman is later acquitted, the libel is indefensible.

Occasionally persons who sue newspapers for libel are not wholly innocent of any guilt. The clever crook is always watching for a chance to profit by a chance mistake. The case is recalled of a cutline on art connected with a feature story reviewing the activities of a notorious underworld gang. The line stated that "the criminal John Doe was aided by his wife in breaking jail." The jail break had occurred eight or nine years before. John Doe had subsequently served his sentence out, been paroled, and only run afoul of the law in minor felonies, of which he had a long list to his name. All the same, he brought suit, insisting he had "reformed" and that the reference to a past felony libeled him.

There is certainly more danger in pictures connected with a feature story of crime than in those used with a straight news story. It cannot be said concerning the feature picture that *it had to be used to report the news.* On the contrary, it is evident that it is only used to gratify public demand for sensation and to make money for the publisher. All such pictures

and cutlines therefore require double attention from the picture editor.

Whenever a libel due to wrong identification has been committed, the newspaper should, and does, *republish the picture* with cutlines that explain and rectify the error. The evidence that such a correction was made will influence the court in awarding damages.

Copyrighting Newsphotos

Very few newsphotos are directly and specifically copyrighted. This is surprising when we consider the huge volume of pictures sold and distributed by the newsphoto agencies, the newspapers themselves, and the commercial and free-lance photographers. Some photos, after publication, are protected by the general copyright of all the contents of the newspaper, but others are not, because having originated outside the newspaper they are not its property to copyright. In general, it seems likely that only a small portion of the newsphotos that appear in print are in the copyrighted class.

Commerce in newsphotos relies very largely on good will and ethical conduct on the part of newspapers, the chief producers and customers of the merchandise, and on the fact that it is difficult to obtain a print of a particular picture without the cooperation of the newspaper or agency where it originated and without paying the usual price for it. After all, even the most unusual newsphoto has a value which is somewhat ephemeral. After it has been published, it is scarcely worth "lifting" by the opposition paper. Picture scoops exist, but it is also true that most important news events are covered, not by a single cameraman but by a battalion of photographers from all the newspapers and services. When a number of cameramen all cover the same event, their product shows a similarity which makes copyrighting beside the point.

Service pictures, such as those sent out by mail and by wirephoto of The Associated Press, are only copyrighted in very exceptional instances. The cost of copyrighting the great flood of newsphotos made throughout the nation daily would probably be prohibitive.

Theoretically, anything published without copyright is "dedicated to the use of the public" and may be copied and

reproduced by anyone who has a mind to do so. In practice, few reputable editors would risk such procedure; and in any case, lacking a print from the original negative, they would be obliged to copy the halftone reproduction as it appeared on ordinary newsprint in the rival paper. Sometimes a newspaper, finding it has missed out on pictures of an important local event, will request the studio of the rival paper to furnish it prints for a later edition than the one in which they intend using them. Seldom is such a request refused. Photographers in this way protect themselves against total failure in camera coverage.

Occasionally, however, there are pictures taken which are so unique in character, so exclusive to the paper or the agency, and so valuable from a commercial standpoint that it is desirable to copyright them, in order to protect all possible avenues of sale. Pictures of the Dionne Quintuplets, copyrighted by the Scripps-Howard Feature service N.E.A., have reaped a gold mine of profits, through the sale of the newspaper rights, the magazine rights, and the advertising rights.

The cameraman can never predict when in the course of his regular work he may stumble across some such valuable pictorial material, yet it can safely be said that very few photographers or newspaper men know what must be done to protect their best photos by copyright.

The Copyright Law. The copyright law of the United States gives the person or the organization complying with it "the exclusive right to print, reprint, publish, copy and vend the copyrighted work."

To copyright a photograph, the negative should be marked with a ©—that is, a *C* enclosed in a circle. This mark of copyright must appear on all prints and in the published pictures, which must also bear the notice beneath them "Copyright, 19__, by _____." Thus, the year and the name of the photographer or the newspaper which is the holder of the copyright must appear in the cutline. Publication of such a picture is *one of the steps* in obtaining copyright. The law says:

> Any person entitled thereto by this Act may secure copyright for his work by publication thereof with the notice of Copyright required by this Act; and such notice shall be affixed to each copy thereof published or offered for sale in the United States by authority of the copyright proprietor.

The law further provides that two copies of the newspaper containing the *published* picture shall be "promptly deposited in the copyright office or in the mail addressed to the Register of Copyrights, Washington, District of Columbia."

The fee for registration of a *published* photograph is $1. An additional dollar is charged if a certificate of registration is desired.

The things to remember concerning the copyrighting of a newsphoto are, then: (1) the negative and all published copies should show the mark ©, on the picture itself. (2) The notice of copyright should accompany the published picture each time it appears and should show the year and name of the copyright owner. (3) Two copies of the issue of the paper in which the picture is first published should be mailed the Register of Copyrights, together with a fee of $1.

Any newspaper which infringes such a copyright by reproducing the picture is subject to damages, under the law, of not less than $50 nor more than $200.

Copyrighting Unpublished Photographs. Free-lance photographers, commercial photographers, and others may desire to copyright their pictures before they offer them for publication.

This may be done, by marking the negative with a ©; marking *each print offered for sale* with the copyright notice, "Copyright 19__, by A.B."; and by mailing *one* print so marked, with a fee of $1, which in the case of the unpublished picture includes the certificate, to the Register of Copyrights. The photographer who obtains a copyright before offering his picture for sale is required to deposit two copies of the paper in which it is first published with the Copyright Bureau.

Of course the commercial photographer who is paid for making portraits cannot copyright these unless he obtains a full release from his client, for, as already explained, the negative belongs to him, but all prints from the negative are the legal property of his client. If he has obtained such a release, he may secure copyright and may later sell prints to the newspapers.

A. APPLICATION EXERCISES

1. Get five recent copies of five metropolitan newspapers which use pictures extensively. Clip pictures which seem to you in any way unethical, if any.

2. If you found any pictures either unethical or in bad taste—if you distinguish between these modifications—could they have been ethically published had the captions been different? If so, rewrite the captions as you think they should have been.

3. Suppose a photograph shows four arrested motorcar thieves with the two police officers who brought them in. Write a caption for this picture which on publication would make the reproduction both illegal and unethical. Now write a caption which would make the publication both legitimate and ethical.

4. Suppose the governor of your state is campaigning for reelection. Assume that the election will be hotly contested, probably close, but that the governor himself and informed circles expect him to win. You get a candid shot of the governor taken late at night after a conference with his campaign manager. The governor has his face buried in his hands, probably an attitude of fatigue. Comment on the ethical question involved in publishing this picture. Write a caption which you believe would make the publication of this picture entirely ethical.

5. Suppose the Junior League of your city will soon produce a benefit play to help needy persons at Thanksgiving. An off-stage action to be recounted in dialogue in the play shows the heroine prostrate under the jaws of a lion. Your publisher considers it in the public interest to publicize this performance. He has a composograph made at the city zoo with the heroine and a lion: the lion in the cage alone in desired position when one exposure is made, the girl alone in desired position when another exposure is made, the two combined to make a realistic picture, though in reality faked. Write a caption for this picture which you think would make its publication ethical.

6. Criticism was leveled at newspaper publication of a particular picture of King Edward VIII and Wallis Simpson before Mrs. Simpson's divorce. The picture showed the two walking along a street, one a little in advance of the other. As their arms swung, the camera caught them so that the front view looked as though they were holding hands. A photographer submitting the picture explained the illusion. Some American papers published this picture in a way charged to be unethical; others in a way regarded as quite ethical. Write a caption for this picture which you believe would have made the publication ethical, and explain what it avoids which the unethical publication probably did not avoid.

B. CHAPTER-ORGANIZING QUESTIONS

1. Why will police often compel prisoners to face newspaper cameras against the prisoners' will? What injury to prisoners may result? What social good may result for the public? What value may accrue to certain prisoners?

2. What courts now bar all photographers? Suppose a photographer takes a picture in a courtroom against court order but unknown to court attachés. What may happen?

3. Describe three hypothetical cases in which an unfaked photograph might injuriously misrepresent a person or institution.

4. What particular conditions make some gruesome pictures quite ethical to publish?

5. What complicating consideration arises to make it difficult to frame laws to prevent the publication of so-called unethical pictures? Illustrate by specific instance, either actual or hypothetical.

6. What legal restrictions are placed upon the use of photographs of people for advertising purposes?

7. Wherein and why do these restrictions cease to operate in pictures used for news coverage?

8. Illustrate specifically how public taste changes with respect to ethics, conduct, and dress, and with respect to published photographs.

9. What three kinds of faked photographs are most common in newspaper experience? Explain a method of handling and a social condition which may make a faked picture entirely ethical to publish.

10. What faked World War pictures caused diplomatic friction?

11. In pictorially reporting the first execution in an American penitentiary by shooting, an American paper published a picture posed by a model, in order to show the target fixed in the region of the heart and the electrocardiograph machine ready to make a scientific record. Since an actual photograph of the execution was illegal, was the publication of this posed picture in any conditions ethical?

12. Define libel in pictures.

13. A Wisconsin newspaper was sued for publishing a picture of the wrong woman in a sensational divorce trial, even though the overline and underline both correctly named the woman actually involved. The paper received the photograph in good faith with the name of the woman involved in the divorce case correctly written on the back. Was the paper guilty at law? With respect to ethics and newspaper caution what should the paper have done before publishing the picture?

14. If an innocent person's picture appears in a group photograph with criminals in the news, what two things may the newspaper do, either of which would justify, both legally and ethically, the publication?

15. What is wrong with a composograph showing an airplane flying over a mountain with the propeller visible?

16. Suppose in a later edition a newspaper republishes a libelous picture with a correct and legitimate caption. What effect has this on a libel suit brought against the paper for the first publication?

17. How may photographs be copyrighted *after* publication? *Before* publication?

18. Why is it impracticable to copyright all pictures which a newspaper publishes?

19. Suppose a commercial photographer photographs a private citizen for pay for the personal use of his client. The negative by law belongs to the photographer. If the client later figures in news and refuses to give a picture to the paper, may the photographer sell the paper a print from the negative which he owns?

20. What precaution do newspapers often take when photographing persons in the newspaper studio for feature section use?

Chapter XXIII

THE PICTURE MORGUE; FILING PHOTOS, CUTS, AND FILM

PREVIEW QUERIES

Since some photographs or mats coming to a paper from services seem to have little or no value for that paper, even in the future, should all of them be filed?

If a smaller paper's budget will not permit a morgue staff capable of individually classifying all pictures deemed possible of future use, how may the paper retain reasonable access to those regarded as "probably worthless"?

Suppose a dust-storm or soil-conservation picture were filed under the general topic, "Agriculture," in a newspaper morgue. What would happen if an editor wanted the picture again quickly? How may such pictures be efficiently filed and yet retain their logical classification of Agriculture?

Suppose the best pictures you have of certain news figures are in group shots containing other notables. How may you file these photographs so as to make the individuals quickly accessible?

Suppose you have pictures of various piers on the New York water front and scenes of the Pennsylvania station. Under what headings should these be filed?

Should metal cuts be extensively filed in a newspaper morgue?

For what reasons, and how, should certain negatives be filed?

ANY newspaper which has followed the modern trend toward pictorial reporting is receiving daily, from staff cameramen, from picture services, from local sources, a quantity of photographs, some of which find their way into the day's news columns and some of which do not. Whether they do or not, they represent a cash purchase on the part of the paper which is not to be ignored.

One of the comfortable things about good newsphotos is the fact that their death rate is not so high as that of words. Yesterday's news story will not be republished tomorrow, nor next week, but yesterday's newsphoto may be published again and again over a period of a month, a year, or even years. Some of

the best newsphotos have been run so often that the experienced picture editor is inclined to sigh when he sees his old friends in print again, but he does have to marvel at their longevity.

Since the merchandise is valuable, the newspaper should see that it is properly taken care of and made available quickly when it happens to be needed again. Some newspapers destroy a great many newsphotos to save the expense of filing. Many pictures look as if they never should have been taken or as if they never could be needed again. Often these are the very ones that turn out to be indispensable tomorrow.

The problem of picture filing presents itself with many different aspects, depending on the newspapers themselves. If a paper is large and wealthy, and uses a great many newsphotos, it will want to classify and file all of them, thus building up a picture morgue that will be its strength in days to come. If the paper is small and uses only a limited newsphoto service, it will probably be able to file all the pictures it receives and should do so. It is the newspaper which uses a large number of pictures, yet is committed to rigid economy in operation, which has the hardest problem. Perhaps it does not maintain a morgue staff large enough to cope with the stream of pictures properly. They pile up with amazing speed. Would it be better to tear up most of them and keep only the obviously valuable ones? The answer to this question is: *No.* Pictures are property which may turn out to have value at any time. They should be kept at least until enough time has expired to make it possible to judge whether they will be wanted again.

For the newspaper that must economize, then, the method of filing pictures should: (1) Make pictures of obvious value readily available; (2) Retain even pictures of no apparent value so that they may be found if needed or discarded when it is certain that they will never be wanted again.

The picture editor should see that all photos not currently in use flow to the morgue regularly and promptly, instead of being dumped into the morgue at irregular intervals. This will facilitate their proper handling. If the morgue is not equipped to classify all pictures, it should divide the picture stream into valuable and less valuable pictures. The latter (which should include only those for which experience shows there will probably be no call) may be retained in a date file. Each day an envelope

bearing the date is added to this file, containing the "worthless" pictures of that day. If these pictures ever should be needed it will usually be possible to locate them after a brief search.

Let us consider an example of such a "worthless" shot. Today in the newsphoto service we receive a picture of John Doe, who was arrested for arson in a distant city. The story has no interest in our locality, probably never will have. But we file it away under the date of, say, Oct. 1, 19__. Three months later John Doe confesses to a string of kidnapings which were national news. Have we his picture? We look in the regular classified picture file and find nothing. However, a telephone call to the newsphoto agency reveals that a picture was serviced to us on Oct. 1, and there we find it, in the "worthless" envelope under that date. In this case, and in many such, the records of the agency servicing pictures will help us to recover those we could not classify.

Of course this is a makeshift plan, but it is suggested as an economy measure when all pictures cannot be classified. At the end of two years, it will perhaps be safe to withdraw an envelope from the files, glance through its contents, and destroy all but those which have gained rather than lost value; but certainly it is a hazardous procedure to destroy pictures which have not been held for this length of time.

In the classified picture file, the best rule to follow is: *Keep it simple.* The best picture file requires *no separate card index* of any kind as a means of locating its contents. It is a straight alphabetical file, ranging *in the same alphabet* all persons, places, and subjects. As we shall see later, if any of these picture groups, whether of a person, a place, or a subject, must for convenience be subdivided, the classifications in the group are likewise alphabetical. Cross-reference cards the same size as the file envelopes are inserted wherever they seem necessary. In such a file, Agriculture will be found under *A*, Roosevelt under *R*, Germany under *G*. If I want a picture of Southern sharecroppers and look in the file under *S* I will find a reference card saying: "See Agriculture: Sharecroppers."

It is best to gather together allied subjects rather than to scatter them too widely through the file. Close grouping permits one in search of pictures for a layout to glance rapidly through *everything there is* that is close to his subject. An editor might,

for instance, come to the morgue looking for a set of pictures on "Soil conservation." There might actually be little under this particular heading, yet under "Drought" might be found pictures suited to his needs, and the danger is they might be overlooked unless they happened to fall under the eye of the one glancing hastily through the file. If everything remotely associated with the subject he has in mind is concentrated in so far as possible in a single file-cabinet drawer, there is much more chance that he will be allowed to inspect everything the morgue has on hand.

We have said no card file of such a picture morgue is necessary, but for the purposes of those who are classifying pictures to go into the file one may be very useful indeed. It need not list new acquisitions, but merely all existing classifications. Some of the large subject groups may occupy an entire drawer or more in the file cabinet, but it will be easier to inspect such a volume of pictures when they are in one spot in the file than if they had to be looked for in many different places.

Of course these large groups will be broken down into subclassifications. Thus a first envelope in the file will contain the more general pictures, followed by an envelope containing pictures in each subclassification. Each envelope will bear the general classification and the subclassification clearly at the top, so that there is no difficulty in glancing through and obtaining what is wanted. To make this clear, let us pull open the picture file drawer in an actual newspaper morgue and see what we have under *Agriculture.* Here is a long series of envelopes, each containing a handful of pictures and each neatly typed with a heading at the top. The envelopes, as we leaf back through them, read:

Agriculture: (General)
Agriculture: Auctions
Agriculture: Barnyard scenes
Agriculture: Beltsville, Md., farm
Agriculture: Charts
Agriculture: Contests: Cornhusking
Agriculture: Contests: Potato picking
Agriculture: Cooperatives
Agriculture: Corn
Agriculture: Cotton
Agriculture: Cotton: Gins

Agriculture: Cotton-picking Machines
Agriculture: Crop Control
Agriculture: Dairy Farming
Agriculture: Department of
Agriculture: Dept. of: Crop Reporting
Agriculture: Dept. of: Graduate School Board
Agriculture: Dept. of: Greenhouses
Agriculture: Dept. of: History
Agriculture: Drought
(*See also* Dust storms, Soil Conservation)
Agriculture: Drought: Charts
Agriculture: Drought: Refugees
Agriculture: Drought: Relief committees.
Agriculture: Electrification
Agriculture: Experimental Farms (*See also* Beltsville)
Agriculture: Farm Machinery
Agriculture: Farm Scenes (General)
(*See also* Gardens, Truck Gardens, *see also* Large photo file)
Agriculture: Farmers
Agriculture: Farmers: Disputes
Agriculture: Farmers: Poverty
Agriculture: Farmers: Rally
Agriculture: Farmers: Voting Scenes
Agriculture: Farmers: Youth
*Agriculture: Farming: *See* Farm Scenes
Agriculture: Farms: Abandoned
Agriculture: Grapes (*See also* Industry: Grapes)
Agriculture: Irrigation (*See also* Soil Conservation)
*Agriculture: Livestock Shows: *See* Animals: Livestock Shows
Agriculture: Mapping
Agriculture: Pests (*See also*
Agriculture: Corn
Insects: Grasshoppers
Insects: General File)
Agriculture: Potato Industry
Agriculture: Research
Agriculture: Restrictions
Agriculture: Sharecroppers (*See also* Agriculture: Farmers: Rally)
Agriculture: Sheep Ranch
Agriculture: Soil Conservation (*See also*
Floods: Control
Dams
Shelterbelt Projects)

*Agriculture: Soil Erosion: *See* Soil Erosion
Agriculture: Soil-less Farming (*See also* Gericke, Dr. W. F.)
Agriculture: Sugar: Beets
Agriculture: Sugar: Maple
Agriculture: Tobacco (*See also* Industry: Tobacco)
Agriculture: Wheat

Each heading listed above represents an envelope of pictures in the file, except those marked with a star, which are cross-reference cards to other places where such pictures may be found. Other parts of the picture file will contain cross references to some of these envelopes. For instance, a card will be found under *Industry: Tobacco* referring to *Agriculture*, where pictures of the raising of tobacco are kept. Cross reference under *Tobacco*, in the *T* portion of the morgue, will refer to both places.

Perfect classification of pictures is not always possible where the picture shows a scene which might bear a relation to two or three important subjects, but it will be easy to locate it if a cross-reference card is inserted under each heading where it might be sought.

Each foreign country in such a file constitutes a main classification, with many subheads. Today, when newspapers are constantly using foreign pictures, it is important to have them in large groups from which rapid selection can be made, as in the case of the subject classifications. A mere glance over the headings typed on the envelopes may help us to spot what we need for a daily story or a Sunday feature. Let us glance at such a file on Germany. It reads:

Germany: (General)
Germany: Agriculture
*Germany: Alps (*See* Germany: Mountains)
Germany: Amusement Parks
Germany: Anti-Jew Scenes
Germany: Army (*See also* Adolph Hitler
See also Germany: Bavaria)
Germany: Army: Helmets
Germany: Army: Rhine Occupation, 1936
Germany: Army: Tanks
Germany: Art
*Germany: Aviation (*See* Aviation: Foreign: Germany)
Germany: Babies
*Germany: Baden-Baden (*See* Germany: Resorts)

Germany: Bavaria
Germany: Berlin
Germany: Berlin: Airport
Germany: Berlin: Olympic Stadium
Germany: Berlin: Reichstag
Germany: Berlin: Zoo
Germany: Border (*See also* Austria: Border)
Germany: Bremen
Germany: Cabinet
Germany: Canals
Germany: Castles
Germany: Catholic Monasteries
Germany: Churches
Germany: Church Leaders (*See also* Mueller, Dr. Heinrich)
Germany: Coblenz
Germany: Cologne
Germany: Colonies (*See also* Germany: Düsseldorf)
Germany: Concentration Camps
Germany: Crowd Scenes
Germany: Eisleben
Germany: Elections (*See also* Hitler and von Hindenburg)
Germany: Flensburg
Germany: Frankfort-am-Main
Germany: Freystadt
Germany: Garmisch-Partenkirchen
Germany: Hamburg
Germany: Housing
Germany: Industry
Germany: Kiel
Germany: Labor Service Battalions
Germany: Lambach
*Germany: Landeck (*See* Germany: Border)
Germany: Leipzig
Germany: Lichterfeld
Germany: Mainz
Germany: Mountains
Germany: Munich
Germany: Munich: Airport
Germany: Natives
Germany: Navy
Germany: Navy: Submarines (*See also* Large picture file)
Germany: Nazi Congress
Germany: Nazi Congress (*See also* Hitler)
Germany: Newspapers

Germany: Nuremberg
Germany: Nurnberg
Germany: Oberammergau
Germany: People: Types
Germany: Police
Germany: Railroads
Germany: Reichstag (*See also* Hitler)
Germany: Relief
Germany: Resorts
*Germany: Rhine River (*See* Germany: Rural Scenes)
*Germany: Rothenburg-on-the-Tauber: Kapellenplatz (*See* Germany: Rural Scenes)
Germany: Rural Scenes
Germany: Saar Territory
Germany: Sports
Germany: Storm Troops
Germany: Stuttgart
Germany: Swastika
Germany: Tannenberg
Germany: Travel
Germany: Travermuende Airport
Germany: Teutoburg Wood
Germany: Unwed Mothers
Germany: Veterans
Germany: Wagner, Richard: Memorials
Germany: War Games
Germany: War Mechanical Equipment
Germany: War Preparedness
Germany: Women
Germany: Workers
Germany: Youth (*See also* von Mackensen, August)

It is merely necessary to glance over such a list of envelope classifications as this to realize that the problem in the morgue is so to divide up a huge volume of pictures that they will not be difficult to sort through, and at the same time keep together in one spot in the file all pictures that might be related to the subject the editor has to illustrate. To scatter them to various parts of the morgue or to fail to subdivide them sufficiently would deprive them of much of their availability. As a matter of fact, nations like Great Britain and France will have still larger picture groups than the one just cited. The editor is interested in but one thing: to find the picture when he wants it, and to find the best possible picture. The alphabetical file can best serve him in this respect.

All persons in the news are carried alphabetically under their names, whether they be foreign dictators, local society women, notorious criminals, or belong to any other category which might make them newsworthy. When the person bears a relation to some subject in the news, a cross-reference card is inserted in the file under that subject, referring to the name file. Thus Hitler has a file of his own, but a cross reference under various classifications of the "Germany" file. When a personal file concerns an individual who has high news value, the volume of pictures may become so important that it is necessary to subdivide them to render them more useful. The first natural subdivision is to place all pictures of the *person alone* in one envelope, and all pictures of him *with others* in a second envelope. These envelopes are marked *John Doe: Individual* and *John Doe: Groups.* Even this simple subdivision fails in the case of the really great notables. Most picture morgues contain large files on persons appearing constantly in front-page news. Take, for instance, a file on Franklin D. Roosevelt and glance over the envelopes of pictures. They read like this:

Roosevelt, Franklin D.: Aboard Ship
: Adverse Propaganda
: Airplanes
: Ancestors
: Ancestral Home
: Art Collection
: Assassination Attempt, 1933
: Assistant Sec'y Navy
: At: Arlington
: Baseball Openings
: Chatauqua
: Chicago Convention
: Church
: Congress
: Constitution Hall
: Dedications
: etc.
: Automobiles
: Birthday Celebrations
: Bonus Veto
: Cabinet
: Campaigning (*See* Roosevelt: Presidential Campaign)

Roosevelt, Franklin D.: Canadian Visit
: Caricatures
: Childhood
: Christmas
: Christmas Cards
: Christmas Seals
: Costumes
: Cruises: Farragut
: Nourmahal
: Pacific, 1934
: Sequoia
: Degrees
: Dogs
: Doubles
: Drought Tour, 1936
: Farm
: Fishing Trips
: Gifts
: Groups: General File
: 1932
: 1933
: 1934
: 1935
: 1936
: 1937
: 1938
: 1939
: Homes: Hyde Park
: Mount Weather, Va.
: N.Y. City
: White House
: Individuals: In Auto
: At Desk
: Microphones
: On Trains
: Orating
: Portraits
: Smiling
: Voting
: Laying Cornerstones
: Letters
: Medals
: Messages
: Paintings

Roosevelt, Franklin D.: Panay Bombing Protest
(*See also* Large picture file)
: Posters
: Presentations and Awards
: Presidential Campaign, 1936
: Proclamations
: Radio Addresses (*See* Individuals: Microphones)
: Receptions
: Red Cross
: Sailing
: Signature
: Signing Bills: 1934
: 1935
: 1936
: Philippine Constitution
: Trips: South America Good Will, 1936
: Southern Trip, 1934
: Southern Tour, 1936
: Southern Trip, Nov.–Dec., 1938
: Western Tour, 1934
: Western Tour, 1937
: Victory Dinner
: Voting
: Welcome Home, Nov., 1936
: Yachts

United States presidents are not the only ones whose picture files might assume proportions which required a large number of classifications. Persons who, like the Duke of Windsor, Charles A. Lindbergh, and many others, have been constantly in the news over a long period of years will require careful classification. The older pictures should not be thrown away, for it is precisely these which may frequently lend interest and charm to a layout.

We have seen that individuals are filed alphabetically under their names. This does not, of course, make it impossible to have such general subject classifications as *People* (meaning types of people rather than individuals); *Crime*, meaning types of criminals and pictures suited to general feature stories on crime, rather than individual criminals; and, in fact, any other such general headings under which experience may show that requests for pictures are made frequently. If a particular picture seems to be one for which there would be no call under the individual's name but

which might serve as a "type," it should go in one of these groups, with a cross-reference card under the name as a precaution.

A. *People* file would show such subclassifications as:

Acrobats
Aerialists
Artists
Auctioneers
Auto Mechanics
Bakers
Bald-heads
Balloon Vendors
Barbers
Bartenders
Bellhops
Bigamists
Blacksmiths
Blind
Brides
Buglers
Bullfighters
Butchers
Cannibals
Champions
Cheerleaders
Chefs
Chorus Men
Clowns
Collectors
Condemned
Cortortionists
Convicts
Daredevils
Deaf Mutes
Dentists
Druggists
Drum Majors
Drunkards
Escorts
Evicted
Family Groups
Fat
Fiddlers
Food Tasters
Freaks
Freckled
Giants
Glass Blowers
Gun Makers
Gypsies
Hermits
Heroes
Hitch Hikers
Identical Persons
Immigrants
Impersonators
Laborers
Liars
Lumberjacks
Mailmen
Milkmaids
Miners
Missionaries
Motherhood
Mountaineers
Negroes
Nudists
Nurses
Occupations (Unusual)
Office Help
Old People
Organ Grinders
Painters
Peddlers
Personalities
Photographers
Plastic-faced
Polar Bear
Policemen
Polygamists
Possemen
Pygmies
Quadruplets
Reformers
Reporters
Reunited
Sailors
Schoolteachers
Scissors Grinders
Seamen
Spiritualists
Sports Fans
Steeplejacks
Stewardesses
Stokers
Stowaways
Street Cleaners
Street Salesmen
Suffragettes
Sweethearts
Telephone Operators
Treasure Hunters
Transients
Triplets
Twins
Vagrants
Vendors
Ventriloquists
Waiters
Waitresses
War Veterans
Window Washers
Women: Blacksmiths
: Crusaders
: Lion Tamers
: Nurses
: Police
: Ships Officers
: Unusual Occupations

A general *Crime* file would contain such subclassifications as:

Arson	Hatchet Slayings	Murders
Bombings	Hex Cases	Murder Scenes
Capital Punishment	Hideouts	Police Round-ups
Children	Jail Breaks	Prevention Work
Detection	Juries	Tar and Feathers
Equipment	Kidnaping	Torture Victims
Firebugs	Lie Detector	Trail Scenes
Floggings	Lineup	Violence
Gangster: Funerals	Lynchings	Women
: Slayings	Mail Robberies	Youth
Hangings	Man Hunts	

Cross-reference cards will have much to do with determining the usefulness of the alphabetical file. There may be good pictures of skiing under several nations, but a cross reference in the *S*'s will locate them all.

It is natural to ask the question whether, since pictures must often be looked for in several places, even in an alphabetical file, it might not be as well to employ some other filing system, together with a card catalogue or index with which to locate them. Some have advocated filing pictures numerically, that is: the last twenty-five pictures the morgue acquired would be placed in an envelope capable of holding that number and placed in the file under an accession number. A card would be placed in the index for *each* picture, with as many cross references as required.

The only thing to be said concerning the numerical file for pictures is that newspapers which have tried it have found it hopelessly inadequate. Consider the plight of the editor who comes to the morgue asking for "the best dozen pictures you have on Roosevelt." We have glimpsed above the amount of material such a name might yield. If each of the hundreds of pictures were in a different part of the file it would take a week to select the best twelve. The plight of the editor seeking a layout on conservation or industry would be as desperate.

It is safe to say that all important newspapers use the alphabetical system for filing pictures today. A few use a variant of the alphabetical file, by keeping the pictures of individuals in one alphabet, the pictures of places in another, and the pictures of subjects, such as agriculture or industry, in a third. Some have a completely separate picture morgue of sports, both players and

scenes. Many of those who began with such systems are now changing over, because the greater the volume of newsphotos and the more frequent the demands that are made for them to the morgue, the more convenient it is found to have everything in a single alphabetical file. Why? Well, as an instance consider what might happen if the city desk (not the sports department) calls up and asks for a photo of John Doe. He is, we may suppose, a featherweight boxer, but his name does not happen to be familiar to the morgue employee. Failing to find him in the general file, she may ask the city desk: "What is the story?" "Why, John Doe has just won the sweepstake." Or he may have just killed his mother-in-law. It will take a good deal of precious time and explanation before he is finally located in the separate sports file. In a general alphabetical file, he would have been spotted at once.

Names prominent in sport will be filed like all other pictures of individuals. There will however, be a general subject file for sports in the *S*'s, containing such subdivisions as *Baseball, Basketball, Boxing, Crews, Cross-country Runs, Football, Golf, Horses* (the subdivisions under this would list alphabetically pictures of all racehorses), *Hunting, Ice Hockey, Ice Skating, Indoor Sports, Jousting, LaCrosse, Marathons, Motorcycling, Mountain Climbing, Olympic Games, Ping Pong, Polo, Racetracks, Stadiums, Tennis, Tilting, Track and Field, Women's Sports, Wrestling.*

Each foreign country is the subject of a main classification in the alphabetical picture file. Under that nation are grouped all *subjects* and *places* which belong with it. Thus the industry of Sweden, the housing projects in Sweden, and the cities and geographical landmarks would each take a subclassification under the main head: *Sweden.*

When we come to our own country, such a plan has to be discarded, because the great bulk of the pictures the morgue has on file concern something or other in the United States. They are filed as we have already noted, under *Agriculture, Crime,* or whatever they may concern. There will be in the alphabetical file a main classification *United States.* It will probably show such subdivisions as: *Army, Navy, Marine Corps.* Aviation of the strictly military variety may be handled here, if desired. Some newspapers have found it better to make *Aviation* one of the main

classifications in the picture morgue, gathering together under this broad heading all aviation pictures, including commercial aviation, United States government aviation, and foreign aviation, with of course a subclassification for each foreign nation. The reason for doing this is that a great many aviation layouts are used which draw regularly upon *all* these different groups, and it is therefore found convenient to have them together. No rule should be laid down, but each picture morgue should be governed in matters like this by the *run of requests* as a general indication of what classifications will prove most useful in the file in special instances.

Each state of the United States can conveniently be a main classification, with places and subjects referring *specifically* to that state grouped together. In filing pictures by state, care should be taken not to place under the state heading those which belong under general subject headings, such as *Agriculture, Industry,* etc. Only subjects which would logically be asked for by states should be so classified. A file for New York State shows:

General File
Albany
Auburn
Barge Canals
Brooklyn
Buffalo
Catskill Mountains: (*See also* Mountains: Catskills)
Chatauqua
Fishkill (*See* Sports: Ski Jumping)
Fort Niagara
Governors Island
Lake Placid (*See* Sports: Ski Jumping)
Little Falls
Long Island
New York City: General
: Seasonal
: Air Views
: Aquarium
: Armories
: Beaches
: Bowery
: British Consulate
: Broadway
: Buildings

New York City: Churches
: Coney Island
: Cotton Exchange
: Crowd Scenes
: Demonstrations
: Elevated Railway
: Ellis Island
: Fifth Avenue
: Harbor (*See* New York City: Water Front, Harbor, and Piers)
: Harlem
: History
: Holland Tunnel (*See* N.Y. City: Tunnels: Holland)
: Housing Authority
: Madison Square Garden
: Market Scenes
: Metropolitan Opera House
: Midtown Hudson Tunnel (*See* N.Y. City: Tunnels: Midtown)
: Monuments
: Motorboat Shows
: Museums
: National Broadcasting Building
: Parades (*See* Parades: N.Y. City)
: Parks
: Pennsylvania Station
: Piers (*See* N.Y. City: Water Front, Harbor, and Piers)
: Playgrounds
: Police
: Post Office
: Radio City: (*See* Radio: Radio City)
: Riots
: Riverside Drive Parkway
: Rockefeller Center
: Schools
: Skyline
: Slums
: Stock Exchange (*See also* New Jersey: Jersey City: N.Y. Stock Exchange)
: Streets
: Subways
: Sweatshops
: Tammany Hall
: Theaters

New York City: Times Square
: Tombs: (*See* Prisons: New York: Tombs)
: Traffic
: Tunnels: Holland
: Midtown
: Lincoln
: Union Square
: Wall Street
. Water Supply
: Water Front, Harbor, and Piers
: World's Fair 1939
Niagara Falls
Police
Rochester
Rooseveltown
Saratoga Springs
State Seal
Staten Island
Wallkill
West Point
Westchester County:
: Jail
White Plains
Wilson

We have tried to give enough specific examples to illustrate the problems that arise in filing pictures. There is always, of course, the matter of handling a few oversized pictures. These require a special large picture file, either a cabinet of shallow drawers or trays, or merely broad shelves close together so that only a small group of pictures is placed on each shelf where they may be readily located. As we have seen in some of the listings above, such pictures carry a reference card in the regular file.

Filing Cuts in the Morgue

In addition to pictures, the morgue files a certain number of cuts which may be needed again. Most newspapers save: (1) all good 1-, 2-, and 3-column cuts of individuals who have any real news value and *all* cuts in these sizes of *local* individuals however unimportant they may seem; (2) cuts larger than 3 columns only on very important people; (3) some cuts, other than individuals,

for which there may be repeated use, as ships, cities, major disasters, racehorses.

All envelopes in the cut file are 3-column size. They are marked as in the picture file and arranged alphabetically. There is no separate card index and no grouping under subject heads, but *only straight alphabetical filing.* A few oversized cuts may be kept in a special drawer or cabinet and reference cards inserted in the regular cut file.

Here again, as with pictures, some newspapers have tried and some still prefer a numerical filing of cuts with a card index. The weight of the metal, it is quite true, makes for a little more trouble if the file must be expanded, but normal expansion can be foreseen and readily allowed for in planning such a file. Again, the alphabetical filing makes for speed in *finding the cuts* when called for, and that is a very important item in any morgue.

The bulk of the cuts made are not saved. The problem of holding onto so much metal would be enormous, and the newspaper could not reprint the same picture layouts often. The pictures themselves may be used again, but they are changed in appearance by new croppings, new combinations, new layouts, and, of course, by their reference to *new events.* The newspaper saves cuts of individuals as "insurance" against the big story that may break close to a deadline. Often, when there is time and a good news picture has just come in, a new cut is made in preference to the old one on file in the morgue.

Every cut before filing is marked with complete identification on the back. For this an acid ink that is indelible on the metal is used. This is a very important procedure, for the cut, just as the photograph, must be properly identified before its use in the paper or grave dangers of libel may be incurred. As an added precaution in identification, and also to show the editor just how the cut will look in print, a copy of it is cut out of the edition in which it was published and is filed with it in the morgue envelope.

Filing Mats in the Morgue

Some newspapers make a considerable use of small picture mats furnished by the services. These may be filed right in the envelopes with the newsphotos, if desired. A proof should accompany the mat as identification and the mat itself should

also be identified on the back, in a margin or clear space, taking care not to injure it in so doing.

Different morgues use different methods of charging pictures out to editors and employees of the newspaper. Whatever method is followed, it is important to see that all pictures are returned to the files. If pictures must be multilated, as in cutting them up for a pastedown layout or photomontage, they should go first to the photographic department to be copied, and the copy, rather than the original, should be used. If the photograph was made by a staff photographer, then the studio will be able to print a duplicate from the original negative, leaving one copy in the morgue file. Unless there is great supervision of this matter, many valuable newsphotos will be drained out of the morgue files, never to be replaced or duplicated.

A simple plan is to keep a daily sheet on which is recorded every picture lent, under its classifications, followed by the name of the borrower, the department of the newspaper, and the date on which it may be expected to appear in the paper. A large box is kept in the composing room, next to the cut bank, with a lock to which only the morgue has the key. The lid of this box has a large slit to allow pictures to be dropped into it. When pictures are delivered to the cut bank from the engraving plant, along with the cuts, they are deposited in this box as soon as the printer has completed his verifications. A morgue employee collects them each day and checks them off the lists of pictures still unreturned. Back lists are checked over each day by the morgue, and pictures which have not returned after their publication, or which did not appear on the date expected, are inquired about at the proper department.

Filing Negatives of Newsphotos

The photographic studio usually keeps its own file of negatives of all pictures made by the staff cameramen. These negatives are seldom called for, after the first printing, since the print is on file in the morgue. They therefore do not require filing in a manner which makes for great speed in constant handling, as is true of pictures. Nevertheless, there will be an occasional call for an additional print from a negative.

The most convenient filing system for negatives is the numerical. Each negative has a number scratched on it. The day's

crop of negatives can be stored away on shelves in the boxes in which the film was purchased, each box containing about 25 negatives. The numbers of these would be marked on the end of the box so they could be easily read, as: "No. 125 to 150."

Some of the larger papers go to much more trouble to file their negatives, placing each one in a cellophane envelope and filing them in drawers. The negative and envelope bear the number, and the film may be examined through the envelope without withdrawing it or possibly damaging it. In any case, it is necessary to keep an alphabetical card file of negatives, by names of people, subjects, and places, and with a certain number of cross-reference cards. Each card bears the number of the negative, by which it may be located.

A. APPLICATION EXERCISES

1. Obtain two copies of different Sunday newspapers which use many pictures. Clip all the pictures and their overlines. Assume these pictures are prints or mats. For identification, number these pictures consecutively. On copy paper, indicate opposite the numeral for each picture the classification label on the morgue envelope in which you file each picture, indicating cross-reference cards where needed.

2. Select from these pictures the 25 per cent which you think are least apt to be used again by these papers. For each of three of this less valuable 25 per cent, write out a logical imaginary case in which a story or feature might develop which would call for a reprinting of the picture or part of the picture. Explain how you would file this less valuable group in case the paper could not afford to classify each print individually.

B. CHAPTER-ORGANIZING QUESTIONS

1. Suppose your newspaper is a sub-metropolitan daily situated in a town which has no distributing office of a news picture agency and that therefore your nonlocal pictures come in mat form from the N.E.A. syndicate at Cleveland, Ohio, 600 miles from your town. You wish to preserve the mats as you would prints, yet your budget will not permit classifying each one individually nor a long-distance telephone call for information on previously furnished mats. What simple system might be devised for filing these mats in two groups of "Probably Usable Again" to be classified individually, and "Probably Worthless" to be retained for two years?

2. Many small newspapers which preserve picture prints and mats at all deliver them from copy desk or pressroom once a week, or less frequently, to the morgue to be filed. Comment on this practice.

3. How often should pictures or mats be culled out?

4. Comment on the use of a card index for a classified picture file.

5. Suppose you have several pictures or mats of experiments with growing corn in chemicals without soil to determine facts about soil nutrition. These

conceivably could be filed under such headings as these: *Science: Experiments: Soil Nutrition; Agriculture: Experiment Station; Corn: Chemical Nutriment; Chemurgy: Corn without Soil;* etc. A prime object in any morgue classification is to use a psychological approach which will file an item under a heading which is apt to occur to an editor looking for the item months or years after it has been catalogued. Explain where you might file these corn pictures, and how you would then insure their being quickly traceable through the headings indicated.

6. What is a helpful policy with respect to grouping certain topics in a single file drawer?

7. Suppose you have prints or mats of charts showing the effect of the 1934 drought on principal farm products in your trade area. Under what classification would you file them?

8. How would you file pictures of termite damage and pictures of the application of methods for providing against termite infestation in farm buildings?

9. Pictures relating to Great Britain obviously would bulk large in any morgue. How would you provide against pictures becoming "lost" under the too large heading *Great Britain?*

10. Suppose you have photographs of the present governor of your state taken alone; also photographs of him in groups with members of his family, members of his personal staff at the state capital, members of his graduating class at the Harvard Law School. Conceivably, you might wish to get your hands on one or all of these pictures quickly. How would you file them so as to make this possible without burying the other figures in the groups or without burying pictures of the governor alone?

GLOSSARY

Additive color process. The production of colored images by actual addition of the primary light colors, *i.e.*, by superimposition of light, or, what is visually similar, by juxtaposition of minute adjacent areas of the various primaries.

Airbrush. An air-operated apparatus for the purpose of shooting a fine even spray of paint onto a photographic print or other surface.

Autochrome. A color transparency plate of the additive type which antedates other existing direct color emulsions.

Balance. Equilibrium between the visual factors of which a layout is composed. Such equilibrium may be active, in which case it is termed asymmetric; it may be static, in which case it is called symmetric.

Ben Day. A copyrighted process taking its name from the inventor, by means of which dot patterns resembling halftone and other designs may be transferred to metal and etched to give a relief printing surface.

Bite. The depth of erosion caused on a metal plate by the action of the etching acid.

Black letter. Bold or heavy Gothic type used in Germany.

Camera lucida. An instrument used to project an enlarged or reduced image of a picture or photo onto a *sheet of paper.*

Candid camera. There is no such thing, for candid is a term used to describe a type of picture, which can be and has been taken with any kind of camera. Candid is a recognized term meaning "animated" portraiture.

Caption. A briefly worded explanation accompanying a printed picture.

Carbro. A subtractive color printing process using bichromated gelatin images superimposed.

Casting. See stereotyping and casting.

Characteristic curve. A graphic representation of the growth of density of an emulsion with increase in exposure.

Chromatone. A subtractive color printing process using toned and superimposed film positives.

Circle of confusion. The diameter of a minute circle or dot which is arbitrarily considered visible only as a point to the eye at some predetermined viewing distance. This diameter may vary, depending upon whether the image is to be viewed small or as an enlargement, from, say, $\frac{1}{100}$ in. or less.

Cold top. The coating, sensitive to light, with which a sheet of metal is treated by the engraver so that a photographic negative may be printed upon it, as on a sheet of photographic paper.

Contact printing. Printing by means of direct contact between the negative and the positive printing material.

Contrast. The quality of relative brilliance of a photographic image. A negative with a great range of tones has much contrast. The term used in this way is roughly synonymous with "gamma." Contrast in a print is more often meant as a measure of apparent brilliance rather than actual range of tones. A contrasty print is one with many black-and-white tones, a paucity of gray tones.

Content. Subject matter of the newsphoto, as distinguished from its photographic qualities or reproduction values.

Continuity. A layout of pictures showing a progressive sequence.

Copy value. Reproduction value of the newsphoto, from the standpoint of engraving and the printing processes to which it will be subjected.

Crop. To mark off a portion of a photographic print, in order to indicate to the engraver what part of the whole picture is to be included in the halftone.

Cutlines. Synonymous with captions. May refer to overline, underlines, or to lines printed at one side of the picture.

Cut bank. The desk or counter in the composing room where cuts are received and based, assembled with their cutlines, and distributed to the makeup men as needed to complete pages. The cut bank should have racks or storage space for cuts which must be held for several days.

Cutout. A figure in halftone from which all background has been removed.

Density. A term used to indicate the actual amount of silver deposit on a sensitive surface. Technically it is the amount of "light-stopping substance in the silver deposit" and is the logarithm of the opacity when opacity is considered as the resistance of a substance to the passage of light.

Depth of focus. (Depth of field, more accurately.) A term used to describe the hypothetical "number" of planes at varying distances from the camera which are in apparent focus. Thus, theoretically only one plane is in focus at a time, but to the eye objects both nearer the camera and further from it may appear to be in sharp focus; this distance from near to far object is known as the depth of field or depth of focus. It is, of course, a variable depending on the criteria established as visual "sharpness."

Desensitizing. The process of dyeing films just before or during development to render them relatively insensitive to light of printing intensity in order that they may be developed by inspection.

Diaphragm. A metal iris aperture of continuously variable size used to control the volume of light entering a lens as well as the effective relative size of the lens opening.

Doctor blade. Knife-edged blade which scrapes the excess ink off the surface of the copper cylinder in rotogravure printing.

Dodging. Varying the amount of light reaching certain portions of the printing surface—contact or projection printing—to compensate for undesired densities of tone in the original negative.

Double printing. A photoengraving process by which black lettering is obtained on the light background of a halftone. The halftone negative is first printed on the metal, which is then reexposed to light in a contact

frame under a negative line film of the lettering in exact position and with sufficient area of black surface to mask all parts of the metal except where the letters are to be printed. White lettering on a dark halftone is obtained by stripping the positive line film of the letters onto the halftone film before printing takes place.

Dropout. A high-light background area or other portion of a halftone which is rendered in pure white instead of showing a dot pattern caused by the halftone screen.

Dufay. A color transparency film of the additive type.

Dummy. A sheet of paper on which a layout is executed. A newspaper page dummy, though small, will have the same proportions as the newspaper page, is ruled for columns, and usually has numbers on the side to indicate measurements in lines of type.

Exposure. The term used when speaking of the amount of light received by a photographic emulsion.

Finlay. A color transparency plate of the additive type, differing from most "direct color" film and plate materials in that innumerable positive color transparencies may be printed from the taking negative, instead of the original negative being reversed to produce a single color transparency.

Fixing. The process of removing from developed emulsions the unexposed silver halides.

"F" number. A pure number (a ratio) used to measure the relative size of the lens aperture and consequently the relative speeds of lenses. It is the ratio of the diameter of the lens opening to its focal length.

Focal length. The distance from an optical point or plane, usually lying within a lens, to the point at which parallel entering light rays emerge as convergent rays coming to a focus or point.

Fog. A uniform deposit of silver on an emulsion which partially or entirely obscures the regular photographic image. It may be caused by stray light or it may occur chemically or electrically.

Format. The shape and size of the newspaper page, or any page.

Gamma. The relation "of the density range of the negative to the range of the logarithms of the exposures producing them." It is an abstract number, a ratio, measuring the contrastiness of a negative which has received a theoretically correct exposure.

A gamma of 1.0 indicates that the negative would transmit a range of light intensities exactly proportional to those of the original photographed.

Glossy. A photographic print on white gloss paper.

Gothic. A classical type face showing uniform strokes.

Halftone. The process of breaking up the continuous tones of a photograph or wash drawing so that these tones may be transferred to metal and etched to give a printing surface. The breaking up is accomplished by rephotographing the picture through a halftone screen.

Halftone cut. A metal reproduction of a continuous tone picture, with a relief printing surface in dot formation.

Hypersensitizing. A process employed to increase film speed, applied either shortly before, or after, exposure; the increase in speed does not last

long and so either exposure or development—depending on the particular process used—must occur close in time to the hypersensitizing.

Insert. A picture to be inserted by the engraver in a space indicated for it in the layout furnished him.

Intaglio. A photoengraving process which results in a metal printing surface which holds the ink in minute cups or depressions.

Intensification. The process of building up added density on a developed silver image, because of insufficient image density.

Jump. The continuation of a story from the page on which it began to some other page of the paper. The headline used on the continued portion is referred to as a "jump head."

Kodachrome. A color transparency film in which the three superimposed taking images—three thin layers stripped onto one film support—are reversed and dyed subtractively in their respective minus colors (without, of course being removed from the celluloid film base).

Layout. A plan of display for pictorial or printed matter or both.

Line cut. A metal reproduction of a line drawing or other picture without continuous tones. Such a cut has a relief printing surface produced by etching.

Lithographic pencil. Very soft pencil used by newspaper artists to put crop marks on the face of photographs. These marks may be readily rubbed off without injuring the print.

Latitude. A term used to express the degree of error permissible in exposure to achieve a usable exposure; the working exposure range of the emulsion, in other words.

Makeup. Assemblage by the printer of the metal type slugs, cuts, and other material, in the arrangement in which they are to appear in the printed page or advertisement. The word is also widely used to refer to the refinements of makeup which the printer can supply.

Mask. A cellophane covering, painted so as to block out certain portions of a picture which is to be copied in the engraver's camera.

Masthead. Statement of the newspaper's ownership, as required by postal regulations. Usually a small block of type on the editorial page, with the paper's name at the top, followed by names of owner, officers, press association affiliations, subscription price.

Minus colors. (As, minus red.) In primary colors, the color sensation of the two remaining colors, the minus color not being present. Thus, minus blue = red & green, which produces a color sensation of yellow to the eye.

Mortise. A space or hole cutting into the general surface or outline of a picture or a cut. Such a hole may be used for cutlines or other type or it may allow for the close joining and fitting of one picture with another.

Nameplate. Also called the "flag." The name of the newspaper, as it appears in a characteristic type face and style, on the front page and on the first pages of additional sections.

Orthochromatic. Sensitive to all spectrum colors from ultraviolet and blue through green and some yellow, but not to the red hues.

Overline. A special caption printed over the picture, as a heading, in larger type.

Panchromatic. Sensitive to all colors of the visible spectrum.

Pastedown. A picture layout in which the newsphotos are pasted in their exact positions on a sheet of white Bristol board.

Photomontage. A picture layout combining and blending several photos to create a single impression.

Polaroid filter. A thin flat piece of glass enclosing minute crystals which transmit only polarized light. Since much reflected light is polarized, a polarizer removes some reflections and glare.

Primaries. The three primary colors—colored light as distinct from "colored" pigment—which cannot be produced from any other colors, but which in combination can produce any other colors.

Print. A positive image from a photographic negative. A transparency is of course a form of print.

Process camera. The engraver's camera, specially designed and equipped for producing the negatives used in photoengraving.

Process film. A film of very high contrast, or gamma, used for subjects like copying work which have only a short light-scale range.

Projection printing. Printing by projection of the light image from the negative upon the printing surface with a lens; the reverse, as it were, of the picture-taking process, the negative image being projected out through the camera onto a sensitized paper.

Reduction. The process of removing silver from a photographic emulsion after development because of too great density.

Reflex camera. A camera with an interior mirror to intercept the light image and project it upon an extra ground-glass atop the camera. Just before exposure the mirror swings clear of the path of the light; or, in some miniature reflexes, a separate lens system is employed for the mirror and top ground-glass plane.

Retouching. Any work done on a negative or photographic print to improve its copy value, *i.e.*, the detail, tone contrast, or other characteristics which will affect its reproduction.

Reversal. A process which reverses the tones of a silver image, black for white and white for black, by means of bleaching the developed image and redevelopment of the remaining silver halide.

Rotogravure. A picture supplement printed on rotary presses by means of copper or copperplated cylinders etched in intaglio.

Routing. Removing excess metal from a photoengraved cut, by means of a revolving cutting tool.

Run-in sidehead. The initial words of the underlines or picture caption, set in bolder type. They may be the first two or three words of the sentence or may constitute a catch phrase at the beginning.

Sans-serif. Letters which have no cross-stroke endings. Modern type faces with uniform strokes and without serifs.

Scale. To determine what the final dimensions of a picture will be after enlargement or reduction.

Screen. A device used in the engraver's camera to break up the continuous tones of a photo or other picture. The halftone screen consists of opaque lines ruled on glass crossing each other at right angles and producing apertures through which the light from the original picture must pass to the new negative. Lines per inch vary from 50 to 300, for newspaper work 65 is usual. The intaglio screen, used for rotogravure, is a positive screen, with clear rulings separating opaque squares.

Serif. A cross-stroke termination on a letter.

Showcard colors. Opaque water colors, used in tones of gray for retouching newsphotos. Also known as Miller's Grays.

Shutter. A mechanical device incorporated in, or attachable to a camera for opening and closing in order to expose the film.

Two commonest types: Between-the-lens, metal blades in or next the lens; focal-plane, metal or cloth curtain with variable slots, or one variable aperture, which travels past the film.

Silhouette. A figure in halftone, most of which appears against a pure white background. If the figure is independent of any background, it is called a cutout.

Slug. Key word written on photos, orders for halftones, page dummies, and cutlines, to aid in identifying and assembling material. The word may also refer to the metal slugs or leads used by the printer to space out lines of type, while a type slug is a metal slug showing letters in relief.

Speed gun. A device attached to the camera consisting of a mechanical or electric shutter tripper and a battery and photoflash lamp socket. It opens the shutter and flashes the flash lamp synchronously with the shutter, thereby allowing instantaneous or action exposures independent of external illumination sources.

Split page. The first page of the second section of a daily newspaper.

Stereotyping and casting. In newspaper parlance stereotyping refers only to the making of the stereotype mat. Papier mâché is forced into the type page to produce a mold, into which molten type metal is flowed in a casting box to produce the curved plate which fits onto the press cylinder. The second part of this process is referred to as "casting the plate."

Stipples. Any mode of shading by separate touches, such as dots, dashes, or short lines. Stippling may be done by the artist on an original drawing or may be produced by an engraving technique.

Streamline head. A less formal modern headline consisting of several lines of type of unequal lengths, each set flush left, leaving white space on the right.

Strip film. A paper-backed roll of film used by the engraver in his process camera. The film, which is of firm consistency, separates from the paper during the developing stage and is ready to be stripped onto glass for printing on metal.

Subtractive color process. The production of colored images by the subtraction of color from white, employing pigments or dyes complementary to the primaries to absorb light progressively from white, leaving only the desired colors reflected from the original white (all-color) surface.

Telephoto lens. A lens which gives an image larger than that produced by an ordinary lens of the same apparent focal length; in other words, one which gives a larger image than an ordinary lens when both are in focus and both at the same actual distance from the film.

Tint block. A metal cut, showing a homogeneous dot structure, used for surprinting a color over a picture printed in black.

Transparency. A photographic image viewed by transmitted light, light coming through the material rather than reflected from it as with a paper surface. A photographic negative is a transparency but the term is used chiefly when speaking of positive images.

Type face. An alphabet showing a characteristic design, such as Caslon, Gothic, Old English, etc.

Type family. A group of closely related type faces.

Type-high. Having the same height as the metal type slugs used in making up the newspaper page.

Undercutting. Action of the etching acid in cutting in under a protected surface on the metal.

Underlines. The part of the picture caption which appears beneath it, usually in small type.

View camera. A camera primarily for use on a tripod, employing the ground glass for focusing and view finding.

Wash-off relief. A subtractive color printing process using bichromated gelatin printing matrices—which allow easy printing of duplicate color prints—in which the exposed halide of the gelatin emulsion is rendered insoluble in warm water. Photographic density variation of the print is thereby converted to presence or absence of gelatin deposit, which absorbs and prints dye in proportion to its amount.

Wide-angle lens. A lens which subtends a wide angle of view; a lens including an angle of view of about 70 deg. to 80 deg. or over would be classified as a wide-angle lens.

Wirephoto. The Associated Press copyrighted trade name for a newsphoto transferred to a distant point by telephone wires. The transfer is effected by reflecting minute portions of the surface of the photo into a photoelectric cell, which converts the light into electrical impulsions. Other large news services now transmit photos by such a process, using the designation "wired photos."

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